

Statements, supported by evidence, of Wm. T.G. Morton, M.D., on his claim to the discovery of the anaesthetic properties of ether : submitted to the honorable the Select Committee appointed by the Senate of the United States, 32d Congress, 2d session, January 21, 1853 / presented by Mr. Davis of Massachusetts, and referred to the Select Committee to whom had been referred the petition of sundry physicians of Boston and vicinity, in support of the claim of W.T.G. Morton, M.D., for the discovery of etherization.

Contributors

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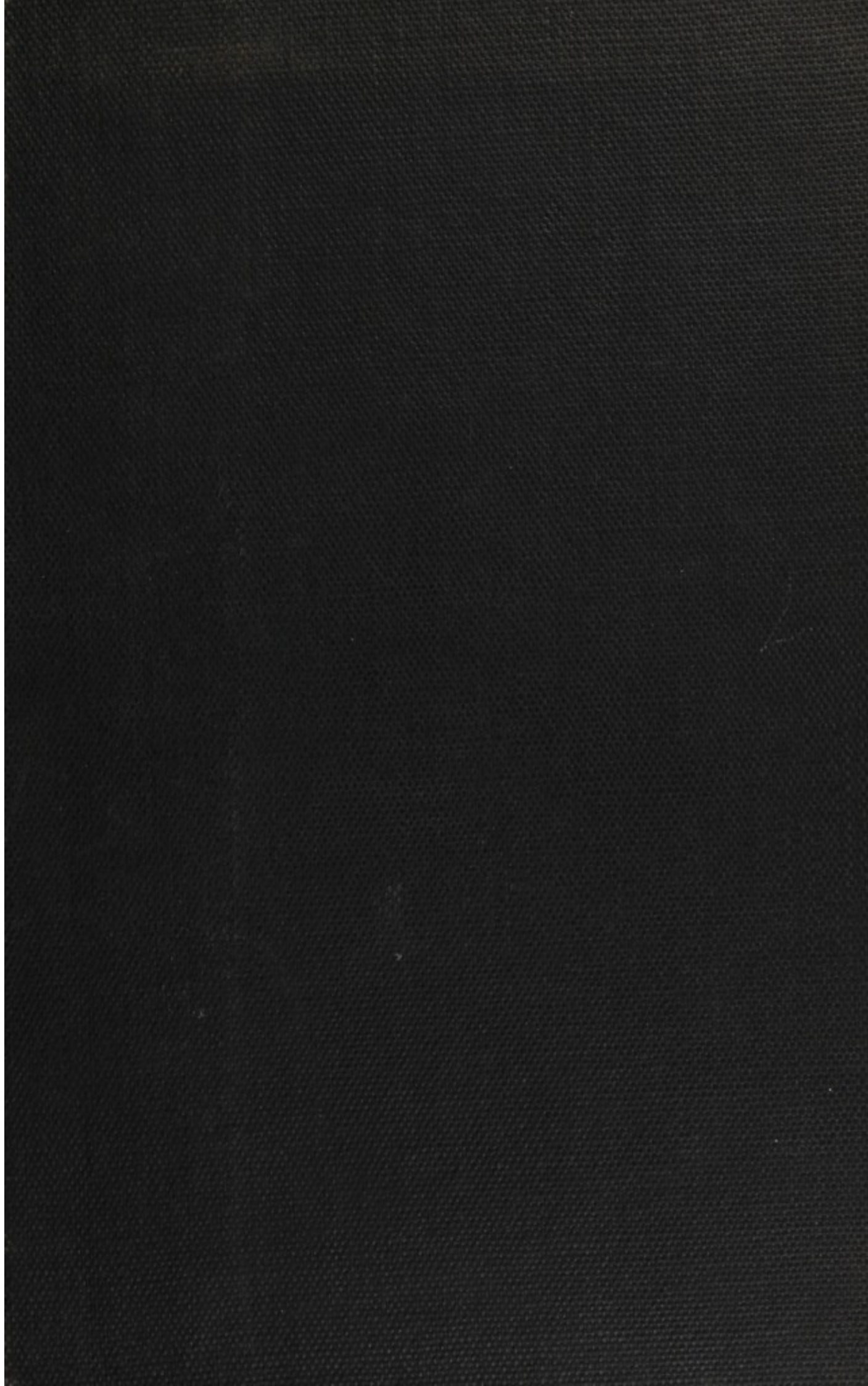
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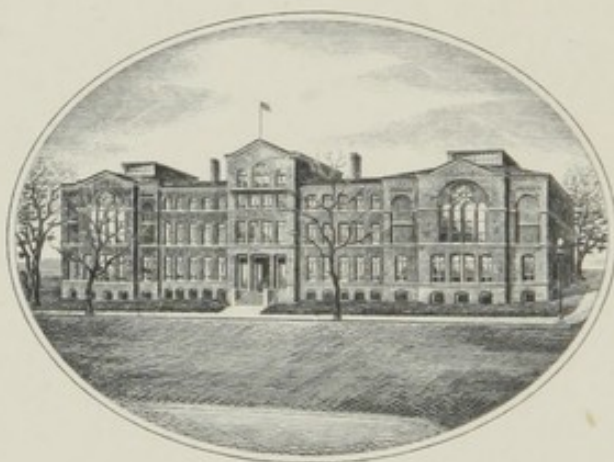
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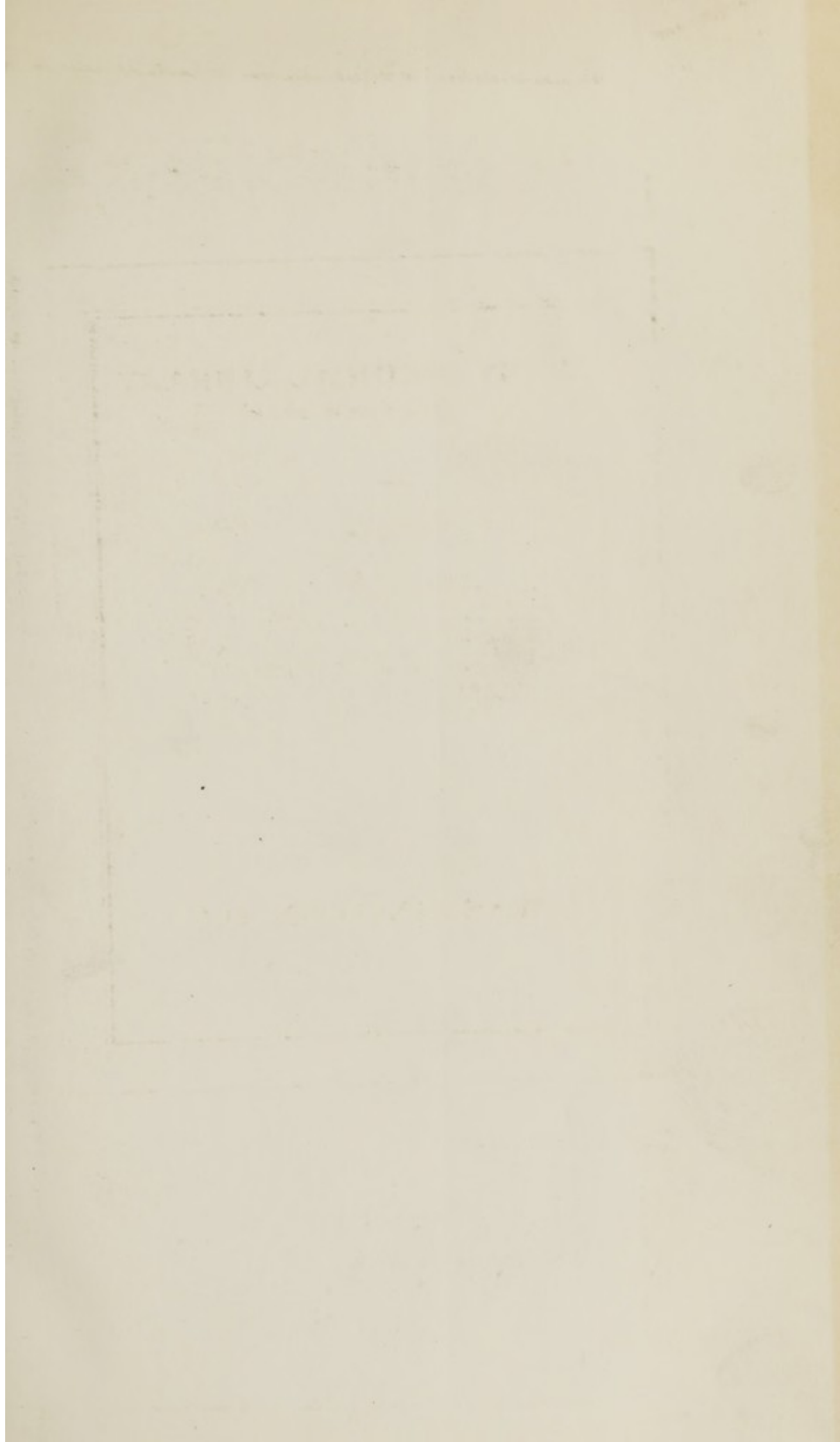
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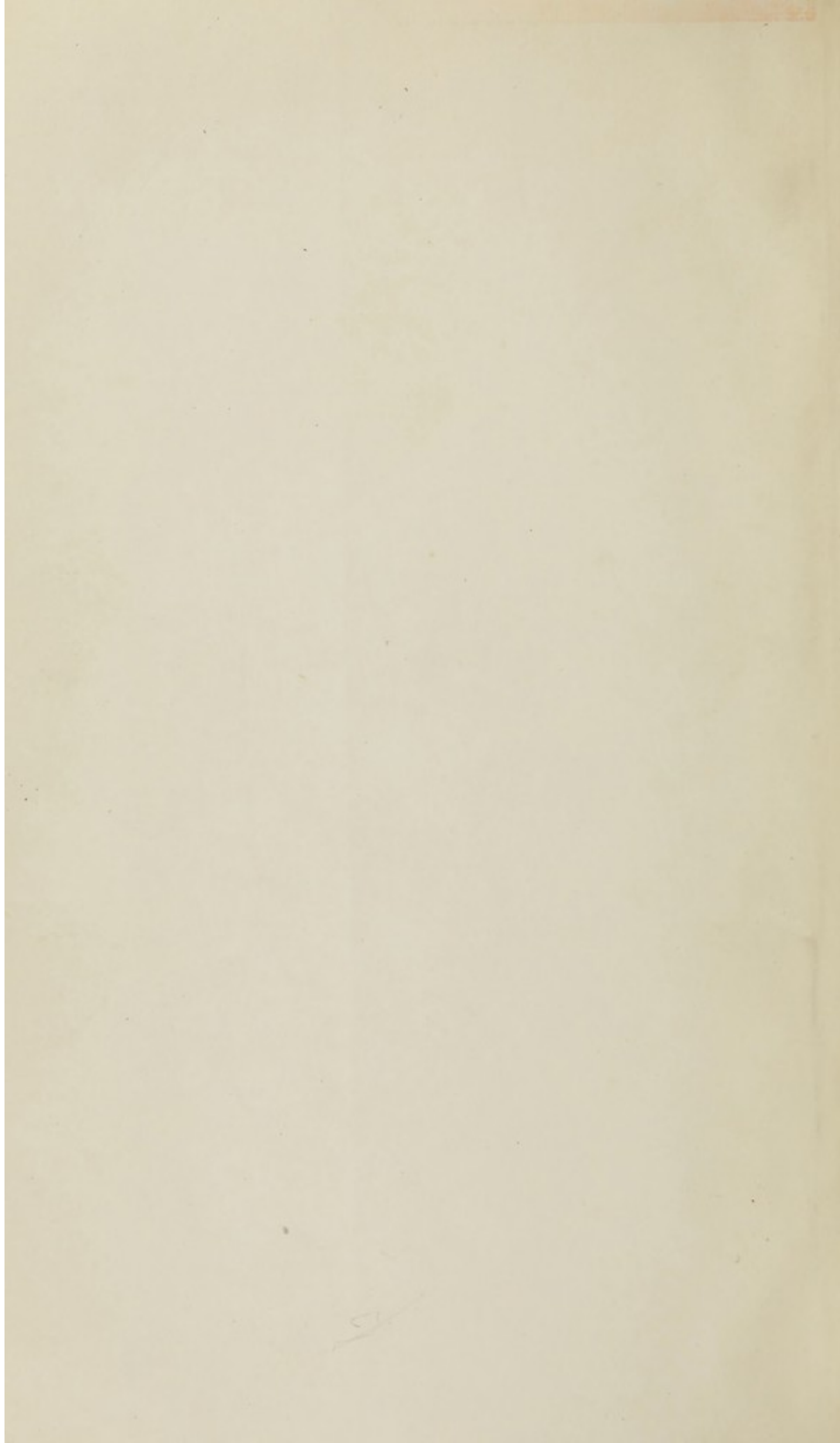


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WASHINGTON, D.C.





*S. Congress, Senate Select Committee on
ether discovery.*

STATEMENTS,

SUPPORTED BY EVIDENCE,

OF

WM. T. G. MORTON, M. D.

ON HIS

CLAIM TO THE DISCOVERY

OF THE

ANÆSTHETIC PROPERTIES OF ETHER,

SUBMITTED TO THE

HONORABLE THE SELECT COMMITTEE APPOINTED BY THE SENATE OF
THE UNITED STATES.

32d CONGRESS, 2d SESSION, JANUARY 21, 1853.

Presented by Mr. DAVIS, of Massachusetts, and referred to the Select Committee to
whom had been referred the petition of sundry Physicians of Boston
and vicinity, in support of the claim of W. T. G. Morton, M. D.,
for the discovery of Etherization.

WASHINGTON:

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Also, Testimony of the surgeons of Boston and vicinity that Dr. Jackson had no connexion with any of the experiments at the hospital or in private practice, and that neither Dr. Warren, nor any one else connected with the hospital, knew or suspected that Dr. J. had any thing to do with the discovery until after the second experiment at the hospital. Embracing a direct denial from Dr. Warren that Dr. Jackson “requested” him to perform the experiment, and full proof that the surgeons relied solely upon Dr. Morton and his dental experiments, not even knowing what they were administering, by Dr. Morton’s direc-

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STATEMENTS, &c.

Mr. CHAIRMAN AND GENTLEMEN OF THE COMMITTEE: I venture to address to you this hastily prepared communication, and to lay it before you in print, believing that it will aid you in a full and fair examination of the subject with which you are charged, and thereby secure the ends of justice. Conscious of my right, my only anxiety is that you may thoroughly acquaint yourselves with all the facts involved in the controversy.

It is now more than six years since the world received, at my hands, what I may not scruple to call one of the greatest of physical blessings. Whatever attempts may be made to throw doubt upon other points in the case, no one has been reckless enough to deny that I alone have been, in fact, the humble instrument through whom a beneficent Providence has conferred this boon upon mankind. Whatever floating notions may have crossed men's minds from the earliest ages, tending to the same end, it must be conceded that the world was no whit richer for them until it fell to my lot to devote all my energies and sacrifice all my means to its attainment. Now it is fully attained. What was the dream of the philanthropist and the half-formed conjecture of the scientific speculator, has become a household fact.

To me alone, of all the world, this result has been fraught with suffering instead of comfort. Of pecuniary sacrifices I will not speak; but surely it was not to have been anticipated that this discovery should have made me the target for the most malicious and envenomed assaults. There are wounds which are sharper than those of the surgeon's knife, and which

———"Not poppy, nor mandragora,
Nor all the drowsy syrups of the world,"

can make us feel less keenly. These have been my portion. I trust that the reward is at hand. I look to you for justice: nothing more, nothing less.

My right is contested by two parties—Dr. C. T. Jackson, of Boston, and the representatives of Dr. Horace Wells, deceased, late of Hartford, Connecticut.

As between Dr. Jackson and myself, there have been repeated adjudications. I call them adjudications, because, although not the work of court and jury, they have all the qualities to give them equal authority.

The report of the trustees of the Massachusetts General Hospital, giving the reiterated verdicts of an enlightened jury of the

vicinage, acquainted with all the witnesses, and upon view of all the facts, have awarded the discovery to me. I respectfully tender to your committee copies of these reports herewith.

The reports of two successive committees of the House of Representatives, one of them after a thorough judicial examination, with the aid of counsel on both sides, have come to the same conclusion. These reports, together with notes thereto, I beg leave also to lay before you herewith.

Upon the last occasion, desirous of such an investigation as should forever satisfy all impartial minds, I voluntarily invoked the intervention of Dr. Jackson, and fully exhibited the claim of Dr. Wells as it then stood, notice having been given to Mr. Ingersoll for himself and Mr. Truman Smith, who had charge of Dr. Wells's interest. Since that time I have gone into Connecticut and called before a United States Commissioner every witness within my reach who was relied on in support of the Wells claim, or was supposed to know any facts concerning his alleged discovery, and have examined them fully. The result of these examinations is also laid before you herewith, in full copies of all the depositions duly certified.

Before the committees of the House of Representatives, Dr. Jackson's counsel produced an extract from the report of a Committee of the French Academy, and quoted it (as Mr. Stanly's report does) as the language of the Academy, characterizing it as a definitive award of all the honor and originality to Dr. Jackson.

I have now a full copy of the report of that Committee, and beg to submit a translation thereof made by the translator of the State Department, which will be found at page 567.

From this it will be seen that the report of this Committee (p. 573) agrees that I had the *preoccupation* of mind, *the engrossing idea* of this discovery *originally*; and that having the original idea, I "*completed*" the discovery, which, without my "*audacity*" would probably have remained "fruitless and without effect" in Dr. Jackson's mind.

Make the best of this conclusion for Dr. Jackson, and it amounts to no more than might probably be alleged for many others. It concedes to me *equal original idea* with Dr. Jackson, and the whole merit of "*completing the discovery*"—language which imports that "*the discovery*" had not been theretofore made.

But the report assumes as its basis as to Dr. Jackson, the following, viz :

"Mr. Jackson *had observed* that SOME PERSONS on being exposed for a certain period of time to the action of etherial vapors *were momentarily deprived of all sensibility. This is the physiological fact. Mr. Jackson established the fact by trying the experiment upon himself.*"

Now *Dr. Jackson himself has never claimed* (on this side of the ocean) that he "*had observed that some persons,*" &c., as above assumed. On the contrary, he claims to have been of sufficiently mighty mind to have reached this conclusion in 1842 by induction from effects produced *on himself*. The foundation, therefore, fails. No such fact existed.

I beg attention to the page last cited, and submit to any legal mind the question whether, upon the very statement of that report itself, my priority of title would not be incontestible under our laws.

In the same *Compte Rendus*, page 556, April 23, 1849, appears the following:

"M. Morton writes from Boston, dated the 16th of March, a letter concerning the question of priority for the discovery of the anæsthetic properties of ether. The author begs the Academy in the case they were disposed to pronounce upon this question, a wish that it should be made known to him in advance, so that he can come in person to sustain his rights before them. M. Morton, after having noticed that the first experiments with this subject had been made at the hospital at Boston, announces that the administrators of this establishment, in their annual report for the year 1848, attribute to him formally the honor of the discovery. He adds, that the question having been brought before the Congress of the United States, the majority of the committee to which it had been submitted, have judged in the same sense."

The *Compte Rendus* of the Academy (a copy of which is in the Smithsonian Institution) contains, under date of March 24, 1848, the following:

"M. Morton announced the sending of documents destined to establish in his favor the priority relative to the discovery of the effect of the inhalation of the vapor of ether. THE DOCUMENTS ANNOUNCED ARE NOT YET BEFORE THE ACADEMY. The letter of M. Morton was sent to be examined by the Commission upon ether and chloroform."

Thus this report, so vaunted by Dr. Jackson, was made on his (Dr. J.'s.) *ex parte* showing. They had my memoir with a fragment of my testimony, but the bulk of my evidence never reached them. I was wholly unknown to them—was depreciated before them by Dr. Jackson's representations—while he was supported by his friend M. Elie de Beaumont. See *Mr. Poore's letter*, p. 469.

The facts will appear by the following:

"On the 31st of January last the Institute of France awarded the 'Cross of the Legion of Honor' to Dr. Jackson as the discoverer of etherization.—*Minority Report*, No. 114, 30th Congress, 1848-9, February 28."

The report was made in January, 1849. (See Minority Report, No. 114, September, 1848-9, H. R.)

I had written as follows:

"If it is the intention of the Academy to pass upon this question, I trust that I shall receive notice thereof, that I may lay before the Academy the evidence developed by the several investigations, and may be personally present. I have also some most material and recently discovered testimony not laid before the committee of Congress, or the trustees of the hospital, which I hope to have in form in season for your investigation."

I never received any notice in reply, and the journal does not show that they ever intended to give me any.

The report had already been made in January, 1849. (See Minority Report, No. 114, *ubi supra*.)

Now, at that time, even the evidence which I had forwarded had not reached them.*

"BOSTON, March 14, 1849.

"DEAR SIR: By a letter received from our Paris agent while you were in Washington, we learn that your pamphlets, addressed to the French Academy and others, owing to a wrong impression, have not as yet been received. They remained at the French custom-house from May 6th to December 16th. The duties on them have now been paid, and they are in the hands of an agent at Paris awaiting your further instructions. Please give us your orders in season for transmitting per next steamer from Boston.

"We remain your obedient servants,

"HARNDEN & Co.

"W. T. G. MORTON, M. D."

In this state of things, all that Dr. Jackson could procure, was such a report as we have seen.

I return now to what has been stated, as to my having invariably introduced fairly and fully the claims of my adversaries on all occasions of investigation. And recently, I have proceeded to cite and examine witnesses before the U. S. Commissioner at Boston, *in perpetuam rei memoriam*, in the presence of Dr. Jackson's counsel, and with ample opportunity to him to detect error on my side and fortify his own.

This testimony will be found most important and convincing, and is at p. 191.

This has been my course:—open, bold, courting investigation, defying controversy.

On the other hand, I refer you to the testimony of Horace

* Dr. Morton also met with another misfortune. All his pamphlets consigned for distribution to the principal journals and the chief surgeons and men of science in Great Britain, got into the possession of a person who had become committed and prejudiced against Dr. Morton, and they were suppressed.—*Littell's Living Age*, No. 201.

Cornwall, Esq., the counsel employed by me in that proceeding, at page 121, Appendix. By this you will see--

1st. That Dr. Ellsworth, one of the three principal witnesses relied on for Wells, is little else than the actual party concerned.

2d. That under his direction the witnesses for Wells were withdrawn from cross-examination by my counsel,—were examined privately, under lock and key,—to keep them from the test of truth!—that even after they were so examined, my counsel was refused to see their testimony, and even their names withheld from him by direction of Dr. Ellsworth, acting avowedly as the agent for Wells's claim.

I have a right, I think you will agree, thus to contrast my course with theirs, leaving you to draw your own conclusions from the facts. I forbear to make any commentary on them. I ask you only to read Mr. Cornwall's deposition, (p. 121 Appendix.)

In like manner, on the present occasion, the same consciousness of right, and the same determination not to claim or receive any honor, reward, or payment, which shall not be clearly my due, upon a full and impartial hearing of all sides, have induced me to collect together, and to print at my own expense, all that has ever appeared in the way of evidence in support of my opponents.

My only alternatives were to subject myself to apparently interminable delay, or to the most unjust and unfounded imputation, (speech of Hon. Truman Smith, August 28, 1852, Cong. Globe,) heretofore made, of having proceeded and acted upon the consideration of *my* claim alone. The present session is rapidly passing away. The memorials of Boston surgeons, physicians and others, in my favor, were, I believe, the very first which were referred by the Senate. My evidence was promptly presented and referred. After the lapse of nearly a month, and neither of my opponents having appeared, notice was given to Mr. Hayes, (counsel for Dr. Jackson,) and Hon. Truman Smith, (representing Mr. Wells,) to present their evidence, respectively, and have it referred to your committee.

Time is still rapidly passing on. No such evidence has been presented by either of these parties. You will perceive at once, Mr. Chairman and gentlemen, that the strategy of my opponents is directed to wearing out my life, and exhausting my means, in order that they may be "*in at the death.*" I am determined that, if Heaven spares my life, to complete this communication, to my wife and children at least, and to my name and memory, you shall have been the means of doing complete and impartial justice.

I therefore submit to you herewith printed copies of two minority reports in favor of Dr. Jackson,* with all the evidence, rumors, hearsay, speculations, arguments and opinions, relied on in those reports to support his pretensions, with annotations.

* See notes on pages 548, 549 and 564.

I also submit printed copies of the two pamphlets published in favor of Dr. Wells, (the first by Wells himself, and the second written by the Hon. Isaac Toucey,) together with all the evidence, rumors, hearsay, speculations, arguments and opinions by which it is attempted to be sustained. This includes a document of one hundred and thirty-two pages.

I invoke, and if I may be pardoned for the use of the language, I demand a fair and impartial examination of all these. At the last session of Congress, and just at its heel, a coalition between the Wells and Jackson claims suddenly interposed an unexpected difficulty in my way. I will not deny that, under the circumstances, enough was said and done to throw doubt upon my right. Apprehending the repetition of this, as it seems to me very unfair course, I determined to submit my claim again to the most rigid judicial investigation, if that were considered necessary; and if, on that basis, Congress would appropriate what it should determine to be due to the discoverer, whoever he might prove to be. Accordingly, the following *projet* of a bill was presented to the Hon. Truman Smith and to Mr. Hayes:

AN ACT

To reward, by a national testimonial, the discovery of the means of producing insensibility to pain in surgical operations and other cases of suffering.

Whereas a discovery has been made of the existence of anæsthetic qualities capable of being applied safely and certainly, and with great utility, to produce entire insensibility to pain, and thus enabling surgical and obstetrical operations to be performed safely and without suffering, and of the application thereof; and whereas the government of the United States have had the benefit thereof in their military and naval service, and the free and common use by the public generally; and whereas a judicial inquiry seems to be necessary to ascertain which of the three claimants hereinafter named is justly entitled to be rewarded for the discovery aforesaid, be it therefore enacted, &c., as follows.

SEC. 1. That the sum of *one hundred thousand dollars* is appropriated in the hands of the Secretary of the Treasury, out of any moneys in the treasury not otherwise appropriated, as a remuneration for the use of the discovery aforesaid, to be paid by the Secretary of the Treasury to one of the claimants hereinafter mentioned, who shall, by legal and competent evidence in the proceedings hereinafter provided, establish his claim thereto, for and on account of the discovery aforesaid: *Provided*, That if W. T. G. Morton, hereinafter mentioned, shall be declared by final judgment in the proceedings hereinafter mentioned to be entitled to receive the fund hereby granted, he shall, before receiving the same, execute and deliver to the Commissioner of Patents, a surrender of the letters patent granted to him on the twelfth day of November, in the year eighteen hundred and forty-six.

SEC. 2. That the district attorney of the United States for the district of Massachusetts shall forthwith file in the Circuit Court of the United States for the district of Massachusetts, sitting in equity, in the name and in behalf of the Secretary of the Treasury, a bill of interpleader, therein reciting this act as the substance thereof; the Secretary of the Treasury, as stakeholder of the fund hereby granted, shall be made complainant, and William T. G. Morton, of Boston, in the State of Massachusetts, Charles T. Jackson, of Boston, aforesaid, and the legal representative or representatives of Horace Wells, late of Hartford, in the State of Connecticut, deceased, shall respectively be made respondents, in which suit the said Morton and Jackson and the legal representative or representatives of the said Wells shall litigate their respective claims to receive

the remuneration hereby granted for and on account of the discovery aforesaid. And the said Circuit Court is hereby authorized to take jurisdiction in the said cause and determine the question to whom the reward shall be paid, by reference to the principles and analogies in which courts of equity having jurisdiction of patent rights and other equitable jurisdiction proceed, for which said court is authorized to make all necessary orders therein, and to make a final decree, declaring which of the said claimants is entitled to receive the said reward for and on account of the discovery aforesaid. And from the final decree of the said Circuit Court made in the premises, either of the other respondents may appeal to the Supreme Court of the United States, which appeal shall be taken, entered, prosecuted and disposed of like other appeals from the Circuit Courts in equity cases.

SEC. 3. If either of the said respondents, after due notice and summons, shall fail to appear and put in an answer to said bill at the time that may be prescribed by the court, the court shall proceed and adjudicate upon the claim or claims of the other respondent or respondents who may have appeared and answered as aforesaid.

Mr. Smith declined, on the ground that Mrs. Wells was unable to sustain the expense of litigation. I then, through Hon. E. T. Davis, Hon. Charles Chapman and E. March, esq., offered to Mr. Smith to advance to her in cash the means for such litigation, or to bear all the expense myself. *This was declined. Mr. Hayes also declined.* Can I give further proof of my fairness?

I am aware that a minority report in favor of Dr. Wells must, in the nature of things, come from your honorable committee. It is my misfortune to have for one of my judges an honorable senator* who, in the debate on the 28th August last, used the following language:

"I pledge whatever reputation I may have, that if the Senate will allow me, at the next session of Congress, an opportunity to be heard on this subject, I will make out a case for the family of Dr. Horace Wells, deceased. If the subject shall then be referred to the judgment of a committee of this body, I will be prepared to make out a case worthy the most grave and serious consideration. * * * I denounce this attempt to filch money from the treasury as an outrage upon the rights of others, and a most abominable imposition on this Government. I believe that this Morton is a rank impostor—that there is no justice or truth in his pretended claim. I demand, in the name of justice and right, to have an opportunity to come before the Senate and tell the story of the wrongs of the poor widow and defenceless children of Dr. Horace Wells—wronges which they have suffered at the hands of this man Morton, who has attempted to rob their husband and father, who has descended to the grave, of a discovery which is one of the most extraordinary made in modern times."

It is scarcely to be expected of human nature that, "though

* *Deposition of H. CORNWALL, Esq., p. 121, Appendix.* "The Hon. Senator demands an opportunity of making out a case—for whom? For clients of his." Speech of Hon. Geo. E. Badger, in Senate, Aug. 28, 1852, *Cong. Globe*.

one should come from the grave" to testify, such foregone conclusions can be removed.

I proceed now to bring to your notice such views and such facts as appear to me essential to the attainment of truth.

And first, I remark, that my claim upon the Government rests in the first place, on a strict legal title. I hold the patent of the United States. Six years have elapsed, and no bill has been filed or other proceeding taken, to invalidate the patent. The Government of the United States have used, and continue to use, in the army and navy, the discovery which by its patent it has solemnly declared to be my property, and this without any compensation. The whole people of the United States have in like manner used it, without compensation to me.

Next, it is to be observed that of the two parties now contesting my right, one of them (Dr. Jackson) has formally and solemnly released to me all his interest and claim in the premises; and the other (Wells) does not claim, but depreciates and condemns the agent (sulphuric ether) which is used by the Government and people of the United States. He claims that nitrous oxide gas in the true agent discovered by him.

This agent never was, nor can it ever be, of any value. The idea of using it is as old at least as Davy and Beddoes, and the practical verification of it has never to this day been made. Here, then is neither original conception, nor verification for practical use.

On this point I beg leave to reproduce here the following letter :

"NATIONAL HOTEL,

"Washington, January 18, 1853.

"DEAR SIR: The subject of the discovery of anæsthesia being now before a committee of which you are chairman, I beg leave to submit to you, and through you to the committee, a proposition.

"One of those who contest my right to the discovery, does so on the ground that anæsthesia had been discovered by Dr. Wells prior to my alleged discovery; and that the anæsthetic agent used in the discovery by Dr. Wells was nitrous oxide gas. Now, if anæsthesia, for surgical purposes, was ever discovered through nitrous oxide gas as the agent, that agent, for the same purposes, will still manifest its efficiency. I deny that such a discovery, by means of said agent, ever was made, or that said agent possesses available anæsthetic properties alone for surgical operations. At the same time, I assert and claim that anæsthesia was first discovered by me, through the agency of sulphuric ether. Therefore, to prove that nitrous oxide never was discovered to be an available anæsthetic agent in surgical operations, and that it is not such now; and to prove also that sulphuric ether was discovered to be an available anæsthetic agent for such purposes,

and is so now, I propose that an actual demonstration shall be made before the committee of the two agents, in such surgical operation or operations as are considered fair tests by scientific men, at such time as the committee may direct and patients obtained.

"Yours, very truly,

"W. T. G. MORTON, M. D."*

"Hon. J. P. WALKER, *Chairman*," &c.

Again: The legal vested right which I hold is not liable to be impaired or divested by any legislation.

These views premised, and repeating the reference to the reports and evidence touching Dr. Jackson's claim, let the facts concerning Dr. Wells's pretensions be calmly and impartially reviewed. I beg the committee to bear in mind, that what I aim at throughout this paper, is such a review of the case as an impartial judge would make. Of course, I am aware, that in my position, I can hardly attain this aim: but I wish to call attention to the fact, that the points I make might be much more strongly urged in the way of mere partisan defence or attack.

Upon the claim of Dr. Wells, the report of the Select Committee of the House of Representatives of the last session, remarks as follows:

"The claim in behalf of Dr. Wells rests on his experiments with nitrous oxide, referred to by your committee in the early part of their report. He had the merit of attempting to carry out practically the idea suggested by Sir Humphrey Davy, of rendering, by its influence, a patient insensible to pain in a surgical operation. He has also undoubtedly the merit of having contributed something in directing the mind of Dr. Morton to the subject, and thus aided in conferring this great boon upon mankind. Originally he did not claim for himself the honor of the discovery, but merely of the attempt, which he admitted to have been fruitless.

* After this document was in type, the above proposition was accepted by the committee, and the demonstration, so far as ether was concerned, took place at the infirmary of this city, this morning, January 28, 1853.

Apprehensive that it might be said that the nitrous oxide gas could not be procured, I caused it to be manufactured by a competent chemist, (recommended by the Professor of the Columbian College,) and further to satisfy the surgeon selected by the committee, (Dr. May,) of its purity, I administered it to several persons on the evening of January 27, in his presence, and that of several senators.

To-day, at the infirmary, we had a patient and the nitrous oxide gas and apparatus in readiness. Dr. May was urged by the chairman of the committee to use the nitrous oxide. He refused peremptorily. He had also been requested by Mr. Trueman Smith, and had refused. I then proceeded, in presence of the committee, and of surgeons of the army and navy, and the medical class, to administer the ether. Complete etherization was soon produced, which continued through a dangerous and protracted surgical operation, lasting about three quarters of an hour.

W. T. G. M.

"The letter of Dr. Morton announcing his discovery and the reply of Dr. Wells, together with the letter of R. H. Eddy, dated February 17, 1847, prove this. They are as follows:

"BOSTON, *October 19, 1846.*

"FRIEND WELLS—*Dear Sir:* I write to inform you that I have discovered a preparation, by inhaling which, a person is thrown into sound sleep. The time required to produce sleep is only a few moments, and the time in which persons remain asleep can be regulated at pleasure. While in this state the severest surgical or dental operations may be performed, the patient not experiencing the slightest pain. I have perfected it, and am now about sending out agents to dispose of the right to use it. I will dispose of a right to an individual to use it in his own practice alone, or for a town, county, or State. My object in writing to you is to know if you would like to visit New York and the other cities, and dispose of rights upon shares. I have used the compound in more than one hundred and sixty cases in extracting teeth, and I have been invited to administer to patients in the Massachusetts General Hospital, and have succeeded in every case.

"The Professors, Warren and Hayward, have given me written certificates to this effect. I have administered it at the hospital in the presence of the students and physicians—the room for operations being as full as possible. For further particulars I will refer you to extracts from the daily journals of this city, which I forward to you."

"Respectfully yours,

"WM. T. G. MORTON."

"HARTFORD, CONNECTICUT, *October 20, 1846.*

"DR. MORTON—*Dear Sir:* Your letter, dated yesterday, is just received, and I hasten to answer it, for fear you will adopt a method in disposing of your rights, which will defeat your object. Before you make any arrangements whatever, I wish to see you. I think I will be in Boston the first of next week—probably Monday night. If the operation of administering the gas is not attended with too

much trouble, and will produce the effect you state, it will, undoubtedly, be a fortune to you, provided it is rightly managed.

"Yours, in haste,

"H. WELLS."

"BOSTON, *February 17, 1847.*

"DEAR SIR: In reply to your note of this morning, I have to state that about the time I was engaged in preparing the papers for the procural of the patent in the United States, on the discov-

ery of Dr. Morton, for preventing pain in surgical operations by the inhalation of the vapor of sulphuric ether, I was requested by Dr. Morton to call at his office to have an interview with the late Dr. Horace Wells, who was then on a visit to this city, and who Dr. Morton thought might be able to render him valuable advice and assistance in regard to the mode of disposing of privileges to use the discovery. Accordingly I had an interview with Dr. Wells. During such meeting we conversed freely on the discovery and in relation to the experiments Dr. Wells had been witness to in the office of Dr. Morton. The details of our conversation I do not recollect sufficiently to attempt to relate them, but the whole of it, and the manner of Dr. Wells at the time, led me, in no respect, to any suspicion that he (Dr. Wells) had ever before been aware of the then discovered effect of ether in annulling pain during a surgical operation. Dr. Wells doubted the ability of Dr. Morton to procure a patent, not on the ground that he (Dr. Morton) was not the first and original discoverer, but that he (Dr. Wells) believed the discovery was not a legal subject for a patent. He advised him, however, to make application for one, and to dispose of as many licenses as he could while such application might be pending; in fact, to make as much money out of the discovery as he could while the excitement in regard to it might last. I must confess that when, some time afterwards, I heard of the pretensions of Dr. Wells to be considered the discoverer of the aforementioned effect of ether, I was struck with great surprise, for his whole conversation with me at the time of our interview, led me to the belief that he fully and entirely recognized the discovery to have been made by Dr. Morton, or at least partly by him and partly by Dr. C. T. Jackson, as I then supposed.

“ ‘Respectfully yours,

“ ‘R. H. EDDY.’

“ ‘R. H. DANA, Esq.’

“ ‘The evidence presented with Dr. Wells’s claim shows that dental operations were in several instances performed without pain by Dr. Wells, under the influence of nitrous oxide, which had been before known in some cases to produce a total or partial asphyxia. It appears, also, that the vapor of sulphuric ether was thought of, discussed, and finally rejected by him—while the total abandonment of the use of nitrous oxide, and, indeed, of every other agent, shows that Dr. Wells’s experiments were, on the whole, unsuccessful. He engaged in the search and failed to find the object of his pursuit. He attempted and endeavored assiduously to carry out the idea to practical results, but was not successful. There was great merit in the effort, but it proved a failure.

“ ‘Dr. Wells, therefore, in the opinion of your committee, is not entitled to the honor of the discovery. He stopped half way in

the pursuit. He had the great idea of producing insensibility to pain, but he did not verify it by successful experiments. He mistook the means, and he unfortunately rejected the true anæsthetic agent as dangerous to life, and therefore did not make the discovery and give it to mankind. He did what Dr. Beddoes, Sir Humphrey Davy, and Dr. Townsend had done about the close of the last century, but nothing more.

"But he had the signal merit of reviving the investigation, and, probably, of hastening the discovery. If an idea connected with the subject lay dormant in the mind of any one, his attempt was well calculated to awaken it into life. When in the fall of 1844, he made his public attempt, in Boston, to produce anæsthesia during a dental operation, by the use of nitrous oxide, if Dr. Jackson had indeed made and perfected this discovery, and felt an abiding confidence in its truth, who can doubt that he would have availed himself of that occasion, or have been reminded by it, to make for himself another, at an early day, of publicly exhibiting and testing the true anæsthetic agent?"

If the facts assumed and stated in this extract are truly and correctly stated, and there are no other facts controlling their rational and legitimate effect; and if the merit of Dr. Wells be limited to a speculative idea, that some safe and practical agent might be discovered to produce insensibility under surgical operations, it could hardly be contended that such idea was either original, or of any value so long as it remained a mere speculation.

If that speculation, and his experiments thereupon, were confined to the nitrous oxyde gas,* and if these experiments were on the whole unsuccessful, and the whole subject was totally abandoned by him without verifying his idea or arriving at any useful conclusions in support of it, it is equally clear that he has no further merit than that of contributing to direct the public mind in the same track, and thereby increasing the chances that such a discovery should be made. But it remains to inquire, whether this be in fact the whole case made for Dr. Wells: and if any other or different case be made out by the evidence, what is its true claim, if any, upon the justice or bounty of Congress.

The claim itself, as set forth by the memorial of William W. Ellsworth and others, is, that "to him (Wells) and to him alone is the honor and award due."

* Since this document went to press, positive testimony has been received from Professor George Hayward, M. D., that he asked Dr. Wells, after his return from Europe, "If he had ever used sulphuric ether by inhalation, so as to render any one insensible to pain, and performed any surgical operation on the individual while in that state? The answer was: '*That he had not.*'"

Professor Hayward's deposition unfortunately arrived too late for insertion in this work, but will be submitted to the committee.

This exclusive claim is based upon an alleged discovery "in the autumn of 1844;" a discovery which is now alleged to have established the great fact, that complete insensibility under surgical operations might be produced at will, safely and certainly, by the inhalation of anæsthetic agents. Upon this subject, of what constitutes the discovery, the printed argument in support of Dr. Wells's claim was in this language: (pp. 1 and 2,) "*Discovery by the late Dr. Horace Wells, &c. Hartford: Elisha Geer, Stationer and Printer. 1852.*"

"If the mere conception of an idea, without subjecting it to the test of experiment, be what is meant, then the inquiry, like all others about abstract ideas floating loosely on men's minds, would be a very different one, and not worth preserving. If a mere theoretical opinion, more or less confidently entertained, or perhaps expressed, be all that is intended, the inquiry would be neither less difficult nor of any more value. But if by discovery in this case, be meant the first practical successful application of some one or more of a class of agents to the purpose of producing *insensibility to pain under surgical operations, with safety to the subject of them*, it will not be difficult to arrive," &c., &c.

The discovery claimed, according to this view taken for Dr. Wells, is the ascertainment of the fact that some one or more of a class of agents would produce insensibility to pain under surgical operations, with safety to the subject of them.

In order to make this discovery valuable, it must be conceded (and is supposed to be implied in the passage quoted) that the proposed effect must be thereby ascertained to be produced with certainty and safety, and in all cases, unless, of course, the exceptions be mere exceptions proving the rule.

The proposition also implies that the discovery is of a principle, extending through a class of agents, leaving the choice among them to be regulated by minor considerations and by convenience.

Admitting this proposition to be correct, *argumeuti gratia* the question then arises, Whether in fact Dr. Wells made such discovery prior to the undersigned?

The first and most striking fact which arises upon this question, is the correspondence between the undersigned and Dr. Wells of October 19 and 20, 1846.

The authenticity of this correspondence is proven by the testimony of the honorable James Dixon, (Appendix p. 32,) that gentleman having been one of the signers of the memorial of Ellsworth *et al.*, before referred to, and having been recently examined with others who had signed it, for the purpose of ascertaining their knowledge of the facts involved in the controversy. Mr. Dixon (Appendix, page 32) testifies that, having seen the cor-

correspondence published among Dr. Morton's papers, he applied to Dr. Wells for an explanation of it. That explanation will be found in the testimony of Mr. Dixon, and may be disposed of with the remark that it is evidently unsatisfactory on the face of it. The point for which that testimony is now referred to, is simply to show that Dr. Wells admitted the genuineness of the correspondence as hereinbefore quoted from the House report.

How, then, can the letter of Dr. Wells of October 20, 1846, be reconciled with the pretensions now put forth for him?

The letter of the undersigned, to which it is a reply, distinctly claims as his discovery (then recently made) the very fact which, on behalf of Dr. Wells, as before quoted, is claimed to be the whole discovery—and the only discovery of any worth or value—viz: the fact of the actual effective application of some one or more of a class of agents *to the* purpose of producing insensibility to pain, under surgical operations, with safety to the subject of them.

According to the proposition on behalf of Wells, (*and his whole case depends absolutely upon its admission,*) the particular agent used is unimportant to the discovery—the discovery being the truth that such insensibility was produced by one or more agents of a class of agents. But it is simply the result—the fact of insensibility to pain—which the undersigned claims in that letter to have discovered, as producible by *something* which he does not describe or disclose.

Can it be disputed that this was a direct claim advanced by the undersigned *to Dr. Wells himself*, of the whole body of the discovery which is now claimed for Wells? And can it be doubted that if that discovery, or anything like it, was then the property of Wells, his reply must have referred to it, if it did not effectually guard his right? Is it possible to reconcile the claim set up for Wells with the reply made by him to the undersigned's communication? So far from indicating or suggesting that any prior discovery had been made by him of the great fact in question, he hastens to congratulate the undersigned on his discovery, and says: "*If the operation of administering the gas is not attended with too much trouble, AND WILL PRODUCE THE EFFECT YOU STATE, it will undoubtedly be a fortune to you, provided it is rightly managed.*" He proposes to see and advise the undersigned as to the method of disposing of his "rights." The testimony of Mr. Eddy covers the interview thus proposed, and is wholly inconsistent with the present pretensions of this party. It would require a greater amount of proof than is ordinarily within the power of parties to do away with a fact like this.

Standing alone, it is a clear admission that at the date of that letter, viz: October 20, 1846, Dr. Wells had made no discovery

which, with all the partiality of the discoverer himself, he could claim or pretend to be equivalent to the discovery which the undersigned announced to him by his letter of the 18th of the same month.

Again: It is claimed for Dr. Wells that this very discovery was communicated by him (Wells) to the undersigned. Is this reconcilable with the letter of the undersigned addressed to him in such terms, and immediately after the complete verification of the fact of anæsthesia by inhalation of ether. Upon ordinary rules and principles of human action, the conduct of neither party at this juncture is reconcilable with the case set up for Wells.

The next fact, which is not to be disputed, and which is highly significant, is that, notwithstanding the alleged discovery by Dr. Wells "in the autumn of 1844," the same discovery took the world by surprise in the autumn of 1846, and immediately assumed its gigantic shape and importance in the eyes of humanity. The forcible reasoning of the House report, upon a similar fact in the case of Dr. Jackson, applies here also. It is unnecessary to do more than refer to those remarks in this connexion.

The testimony in relation to the claim of Wells may be best considered by distributing it according to its applicability to several cardinal points, viz:

1st. The facts and circumstances attending his alleged discovery and experiments, from its conception down to his visit to Boston on that business.

2d. The facts attending that visit and his return therefrom.

3d. The facts bearing upon the question whether he then abandoning his theory as unsound and of no practical value, leaving the question of anæsthesia in substantially the same condition as he had found it.

In the publication made by Wells himself, under date of March 30, 1847, (*"History of the discovery of the application of nitrous oxide gas, ether and other vapors to surgical operations, by Horace Wells: Hart pro J. Gaylord Welles, 1847,"* p. 5,) he says: "Reasoning from analogy I was led to believe that surgical operations might be performed without pain; by the fact that an individual when much excited from ordinary causes, may receive severe wounds without even feeling the least pain; as, for instance, the man who is engaged in combat may have a limb severed from his body, after which he testifies that it was attended with no pain at the time; and so the man who is intoxicated with spirituous liquor may be severely beaten without his even feeling pain, and his frame in this state seems to be more tenacious of life than under ordinary circumstances. By these facts I was led to inquire if the same result would not follow by the inhalation

of exhilarating gas, the effects of which would pass off immediately, leaving the system none the worse for its use. I accordingly produced some nitrous oxide gas, resolving to make the first experiment on myself, by having a tooth extracted, which was done without any painful resolutions. I then performed the same operation for twelve or fifteen others with the like success. This was in the fall of 1844. Being a resident of Hartford, Connecticut, I proceeded to Boston in December, to present my discovery to the medical faculty," &c. &c.

Appendix page 90 is the affidavit, No. 1, of John M. Riggs, whose subsequent affidavits will be hereafter noticed.

In No. 1, this witness says: "On or about the 1st of November, 1844, I was consulted by Horace Wells, surgeon dentist, of this city, county and State aforesaid, as to the practicability of administering nitrous oxide gas prior to the performance of dental or surgical operations. Thinking favorably of the suggestion, it was decided to make trial of the gas in question; and the day following, per agreement, the protoxide of nitrogen was administered to Horace Wells, aforesaid, at his request; and I extracted one of his superior molar teeth; he manifesting no signs of suffering, and stating that he felt no pain during the operation.

In his deposition No. 2, (Appendix page 91,) he says: "I, John M. Riggs, &c., &c., do depose and say, that during the months of *November and December*, 1844, I made use of the inhalation of nitrous oxide gas, both alone and in connexion with Dr. Wells, for the prevention of pain during the extraction of teeth. I declare that these experiments were repeated during these two months *not less* than twenty times, *more or less*."

By the depositions of Samuel A. Cooley, forwarded to Hon. Charles Chapman, (Appendix, p. 1), on behalf of Mr. Wells, and by the subsequent examination of the witness, Riggs, (Appendix, p. 94) under citation from the United States Commissioner, it clearly appears that the facts attending this alleged discovery were as follows:

On the 10th of December, 1844, a person named Colton (Appendix, p. 127,) gave an exhibition in the city of Hartford, to show the common and well known effects of the nitrous oxide or "laughing gas." On the next day (December 11,) he gave a private exhibition at which the witness, (Cooley,) Wells and others were present. Cooley, (Appendix, p. 1,) while under the influence of the gas, bruised his shins, without being sensible of it. He, Cooley, says when made aware of this fact he remarked that he believed a man might get into a fight with several and not know he was hurt; and that "if a person *could be restrained*, that he could undergo a severe surgical operation without feeling any pain at the time."

That Wells then remarked "that he (Wells) believed that a person could have a tooth extracted while under its influence, and not experience any pain," and "that he (Wells) had a wisdom tooth that troubled him exceedingly, and if said G. Q. Colton would fill his bag with some of the gas, he could go up to his office and try the experiment," which said Colton did, and the said Wells, G. Q. Colton and your deponent and others, at this time unknown to deponent, proceeded to the office of said Wells, and that said Wells there inhaled the gas, and a tooth was extracted by Dr. Riggs, a dentist there present," &c., &c.

It cannot escape animadversion that this account differs from that of Wells, and of Riggs in his two *ex parte* depositions. Not only does it appear that the positive and reiterated statements by Wells and Riggs as to the month of November is incorrect, but that the facts and circumstances with regard to Colton's exhibition and the drawing of Wells's tooth immediately thereafter were suppressed, obviously, it would seem, for the purpose of putting a new face and color upon the transaction by the alleged idea and speculation of Wells.

The fact is not doubted that Wells had his tooth drawn; nor is it doubted that he attempted to extract teeth for others. In his own publication, (before cited,) he states at page 6, that prior to his visit to Boston in December, 1844, he had done so, and that "*with one or two exceptions, all on whom I (Wells) had operated, numbering twelve or fifteen, assured me that they experienced no pain whatever.*" The number of operations thus performed, does not appear satisfactorily; but it is to be presumed that Wells himself has stated it as strongly as the truth would allow, and of the number operated on by him, he admits that there were one or two who suffered pain. (Appendix, p. 10.)

In this state of things he proceeded to Boston.

He states that, by the invitation of Dr. Warren, he addressed the medical class on the subject; and at pp. 6 and 7 he details his argument then used, and which certainly was not calculated to make a favorable impression on scientific minds. He also fully admits the failure of his experiment then to draw a tooth without pain; though he refers this failure to the premature withdrawal of the patient for the operation of the gas.

Let us now inquire what was the result of this failure.

Taking even Wells's own account of what he had theretofore accomplished, the mind is quite prepared for what followed. On this subject, the testimony of Cooley, (Appendix, p. 5,) Olmstead, (Appendix, p. 12,) Brinley, (Appendix, p. 20,) Bolles, (Appendix, p. 14,) is conclusive.

Cooley states that a verbal arrangement had been entered into between him and Wells, immediately after the experiment of the

11th December, 1844, in the nature of a partnership in the matter of drawing teeth without pain. In his answer to the sixth interrogatory, he says: "The first intimation I had that Dr. Wells did not intend to carry out the partnership arrangement with me, was when he informed me, several weeks after this arrangement was entered into between us, *that he had just returned from Boston, where he had made a public experiment which had proved a failure. He then said to me that he was disappointed in the effects of the gas; and that it would not operate as we had hoped and thought it would, as there was no certainty to be placed upon it, and, consequently he should ABANDON IT, as he had so much other business to attend to; and, as the gas would not operate in all cases alike, and therefore would not be trusted, HE ADVISED ME TO GO ON WITH MY EXHIBITIONS, and thought I could make money out of them; and that, although he had got through with his experiments in the business, he would assist me in any way he could, in order that I might succeed with my lectures, and administering the gas, mesmerism, and the use of a card of questions which he had prepared, so arranged that a correct answer could be given by a person in the adjoining room.*" Cooley further says, in his answer to the ninth interrogatory, (Appendix, p. 5,) "I know of Dr. Wells going to Boston, soon after the noise in the papers of the discovery of the effects of ether by you, in 1846, and had a conversation with him, on his return, about your discovery. He made no claim to me of the discovery being ours, *but, on the contrary, expressed regrets that we had not continued our experiments to a successful termination.*" In his answer to the tenth he says, "*I discovered no material change in the health of Dr. Wells, after his return from Boston, in January, 1845, and he followed his professional business the same as usual, until early in the spring, when he commenced getting up a panorama, or exhibition of natural history; and that he exhibited for some time in the City Hotel in this city.*"

The testimony of BOLLES, OLMSTEAD, and BRINLEY will be found to confirm the witness Cooley, in the material points, and in all respects when their knowledge extends to the same or similar particulars.

If any confirmation were needed for this evidence, it is abundantly supplied by the fact, at once public, notorious, and of controlling significance, that from the period of Wells's unsuccessful demonstrations at Boston, until after the discovery by the undersigned, nothing whatever was heard of the supposed discovery, so full of comfort and relief from suffering to the minds and hearts, as well as to the bodies of men—for it can scarcely be considered a greater boon to the physical sufferers themselves than it is to all those whom the ties of blood and nature have so united with them, as to produce the most exquisite sympathy in

pain or pleasure. Father, mother, son, daughter, husband, wife, brother, or sister, are words which it is enough to pronounce in this connexion, to prove the justness of this language.

It would require very strong proof to countervail the single consideration presented in the last paragraph. But the fact is undoubtedly as stated; and the suggestions, on the part of Dr. Wells, to account for it can produce no impression on any impartial mind. It is abundantly clear from the evidence, that Wells had means, health and energy enough to devote himself to other pursuits during this period. Nor is there any ground for the insinuation (very much out of place in the testimony of a witness) which is found in the affidavit of the witness Riggs (*at page 27 of the Wells pamphlet, 1852,*) to the effect that Wells failed at Hartford, for lack of a *hospital, "or ample surgical facilities which Boston possesses;"* and that he was foiled at Boston, because "*its array of surgeons, its hospitals, its medical and other journals were all eager to secure the credit of the discovery to the Athens of America,*" as that city is sneeringly called by the witness. In the same exceptionable tone (very much calculated before any court or jury to deprive their testimony of the weight which belongs to that of every impartial and credible witness) are the affidavits of the other witnesses mainly relied on in support of Wells's claim, (*viz: Drs. Marcy and Ellsworth,*) which will be particularly noticed hereafter. It is remarkable, in this connection, that Dr. Wells shows that he had access to the very theatre where the undersigned demonstrated this discovery, and that he was by Dr. J. C. Warren (who afterwards hailed the discovery of the undersigned as a blessing to humanity,) received two years before with equal candor. Without pursuing this point further, it may be safely concluded, with a general reference to the evidence, that Wells having become satisfied by his signal failure at Boston, that his notion of intoxicating the patient, and by his excitement, making him insensible to pain, was neither safe nor certain in its practical operation, abandoned it entirely, and left the matter substantially where he found it on the occasion when Cooley bruised his shins, and like a drunken man was unconscious to pain in his exhilaration.

No one who is familiar with the evidence in this whole controversy can doubt that so far as Wells is concerned, the world at this moment, with reference to this important and most interesting discovery, would be just where it was half a century ago with the suggestions of Sir Humphrey Davy as to the effect of nitrous oxide gas, but for the undersigned.

This claim has been shouldered by the municipal council of Hartford, by sundry physicians of that place, and by the legislature of Connecticut.

It is to be remarked that neither of these bodies acting together, profess to have any personal knowledge of any fact going to

establish the right in controversy. Neither can it escape observation that such proceedings, not preceded by any deliberate examination of facts, are entitled to very little weight, however respectable or authoritative the sources from which they emanate.

It appears from the proceedings before the House committee, that on that occasion the undersigned took pains to bring before that tribunal the claims of his competitor, and invited a thorough investigation of their respective pretensions. Upon the adjournment of the last session of Congress the undersigned proceeded to Hartford, and there instituted a proceeding intended to be within the provisions of the Judiciary act of 1789, or the acts of 1812 and 1817, for the taking of testimony, and in this manner examined all the witnesses within his reach, who had been supposed to support Wells's claim, in the presence of Mrs. Wells's counsel, and with all the disadvantages of an examination in chief of witnesses to a certain degree committed against him, followed by a cross examination in support of their original evidence.

This testimony will be found in the Appendix. The mass of it may be disposed of with this remark, that it reduces the resolutions of the Council and of the Legislature, and the memorial of Dr. Ellsworth and others to the grade of authority above suggested in that behalf. The case is left to stand upon the evidence of Riggs, Marcy, Ellsworth, and the witnesses who testify to the extraction of their teeth under the influence of nitrous oxide gas. Of this last, it is unnecessary to say more than has already been said; but of the witnesses Riggs, Marcy and Ellsworth, it is proper to take more special notice.

And first, it may be remarked that Marcy and Ellsworth do not aid Dr. Wells's pretensions beyond the conceded case extending to the expedition to Boston, and the consequent abandonment of the speculation.

All that they say is entirely consistent with the testimony of Cooley, Bolles, Olmstead and Brinley. If indeed they regarded the great discovery accomplished in 1844, they would find it difficult to defend themselves, not alone before the profession, but before the world, for suffering it to sleep in oblivion whilst thousands were undergoing unspeakable agony. One of these gentlemen (Dr. Marcy) by his own account, pretends that he performed a single surgical operation with the aid of this discovery; (an operation, by the way, which he alone appears to have witnessed) and then threw aside the whole subject until after the undersigned's discovery:—and the other (Dr. Ellsworth) by his own account, a writer for the Boston Medical and Surgical Journal, contented himself with a casual allusion to it in an article headed "ON THE MODUS OPERANDI OF MEDICINE," published six or seven months afterwards;—which allusion, incidentally introduced, is quoted in the Wells pamphlet of 1852, in the following words: "the nitrous oxyde gas has been used in quite a number of cases by our dentists, during the extraction of teeth, and has been

proved by its excitement perfectly to destroy pain." This is all that Dr. Ellsworth can produce by the way of evidence that prior to 30th September, 1846, (when the undersigned's discovery was made) HE KNEW OF THIS GREAT TRUTH WHICH HAS ASTOUNDED THE WORLD. (See note page 76 Appendix.)

It is upon Dr. Marcy principally that the Wells claim seeks to support itself. It must be conceded that he, Marcy, knew from Wells all that Wells knew or suspected. Wells himself, in his publication of 1847, (p. 13) vouches Dr. Marcy as the person with whom he "advised" and "*discussed the comparative merits of nitrous oxide gas and rectified sulphuric ether.*"

It is important, then, to see, if possible, to what conclusions Wells's experiments and discoveries had brought Dr. Marcy. This gentleman, in his deposition of 1849, (*Wells's pamphlets*, 1852, p. 31,) (Appendix, p. 110,) declares that, "IN THE MONTH OF OCTOBER, 1844," (*which is two months prior to the first notion of Wells on this subject*,) he "*witnessed the extraction of a tooth from the person of T. C. Goodrich, esq., of this city, (Hartford,) by Dr. Horace Wells, after nitrous oxide gas had been inhaled, and without the slightest consciousness of pain on the part of the gentleman operated upon. Not only was the extraction accomplished without pain, but the inhalation of the gas was effected without any of those indications of excitement, or attempts at muscular exertion, which so commonly obtain when the gas is administered WITHOUT A DEFINITE OBJECT OR PREVIOUS MENTAL PREPARATION. By this experiment two important, and, to myself, ENTIRELY NEW FACTS, were demonstrated: 1st, That the body could be rendered insensible to pain by the inhalation of a gas or vapor capable of producing certain effects upon the organism; and 2d, WHEN SUCH AGENTS WERE ADMINISTERED TO A SUFFICIENT EXTENT, FOR A DEFINITE OBJECT, AND WITH A SUITABLE IMPRESSION BEING PREVIOUSLY PRODUCED UPON THE MIND, that no unusual mental excitement, or attempt at physical effort, would follow the inhalation.*"

It is impossible to read Dr. Marcy's statement of these "two new facts" without being reminded of Cooley's testimony with regard to mesmerism. It is apparent that the second and important fact which Dr. Marcy deduced from the experiment of Dr. Wells, viz: that the insensibility to pain would be attended by such a condition of the patient as would make it possible to subject him to a surgical operation, hinged upon two independent and fanciful prerequisites, viz: that the gas should be "ADMINISTERED FOR A DEFINITE OBJECT," and that the patient should have "A SUITABLE IMPRESSION PREVIOUSLY PRODUCED UPON THE MIND."

Again he says, in an article published in the *Journal of Commerce*, (Appendix, p. 113,) on the 30th day of December, 1846: "*Another fact in relation to the exhilarating gas, &c., is worthy*

of notice ; under ordinary circumstances, the person who inhales the gas HAS NO CONTROL OVER HIMSELF, but if, previous to his taking the gas, HE FIXES HIS MIND STRONGLY UPON SOME GIVEN PURPOSE, AND EXERCISES HIS WILL STEADILY IN ORDER TO EFFECT AND CARRY OUT THIS PURPOSE, HE WILL, IN NEARLY EVERY INSTANCE, REMAIN QUIET."

The same description of it is given by Wells in his publication, dated Paris, February 17, 1847, (Appendix, p. 118,) Boston, *Atlas*.

This is sheer charlatanism. A discovery which depends for its efficacy upon the concurrence of two fools, one to administer, and the other to be administered upon—leaving everything to the effect of imagination—is only entitled to the attention of such as are fit to be operators or patients under that system; and the number of these, it is hoped, is small.

But how is it possible that these mental pre-occupations of operator and patient should have been adopted by Dr. Marcy as necessary conditions to the success of Dr. Wells's discovery, if that discovery was understood by Marcy at that time, as identical with or equivalent to the discovery made by the undersigned? The latter is purely physical in its operation. It does not differ in this respect from any other fact or theory in the *materia medica*. The former essentially depends upon the imagination; and, fortunately for humanity, must have but a rare and doubtful operation. It is nevertheless a fact, not now to be disputed, that the manipulations of the mesmerizer have reduced patients (and more than the twelve or fifteen claimed by Wells) to the condition which Dr. Marcy proposes in his second specification of "important and new facts."

It is not to be wondered at, then, that these gentlemen, Drs. Marcy and Ellsworth, should concur with Wells in the opinion that the operation was uncertain and could not be trusted, and practically abandoned all idea, if such was ever entertained by them, of making it a useful agent in surgery. In fact, it does not appear that either of them performed any operation with its aid until after the discovery by the undersigned; at all events not between that time and the early experiments which we have seen had resulted so as to induce Wells himself to abandon the subject. After the discovery by the undersigned had been fully tested and established, it was easy enough to reason themselves into the belief that it was all embraced in that which they participated in, but which had been without the slightest profit to the world at large, or any practical advance towards this great boon to humanity.

It is true that Dr. Marcy states that he performed an operation *with ether* soon after Wells's first experiments with the nitrous oxide; but it is by no means clear that such was the fact; and if the fact, it can hardly be doubted that the experiment was a failure. When the idea occurred to Wells, in the face of his

letter of October, 1846, to the undersigned, to claim that he had made the same, or an equivalent discovery in 1844; and when Drs. Marcy and Ellsworth came to his aid, it is not possible that the fact that ether itself had been used, and that "the operation was entirely unattended with pain," if such a fact existed, should not have instantly occurred to them as most material to his claim, and that the facts and particulars, with clear proof thereof, should not have been instantly produced. Yet there are two publications by Dr. Marcy himself, defending Well's claim—one on the 30th of December, 1846, (Appendix, page 113) and the other on the 8th of January, 1847, (Appendix, page 116) both in the Journal of Commerce, in which the material fact, although directly pertinent to the precise purpose of the publications, is not even alluded to. In both of these publications he limits himself to the statement that he, Marcy, had *suggested* the use of ether to Wells; but that, "upon reflection and more full discussion," he had advised that the exhilarating gas was preferable. On the 27th of March, 1847, (Wells's pamphlet, Hartford, J. Gayland Welles, 1847, p. 20) he makes his third publication, (Appendix, p. 132) and verifies the same by affidavit, wherein, after reiterating that ether had been discussed and *that he had advised against its use*, he for the first time states the following fact: "I also take this occasion to assert from my positive knowledge that *the ether vapor was administered very soon after this period*, (and prior to 1845) *for the performance of a surgical operation.*"

This is all he says of it. He does not intimate that he performed the operation; but, on the contrary, states that he had steadily advised against its use. Nor does he state what the operation was, nor what success attended it. It was reserved for his fourth statement (Appendix, page 110) made five years after the operation, (1849,) to disclose the fact that he himself performed the operation upon "the young man above alluded to;" and that it was the cutting "from his head, an encysted tumor, about the size of an English walnut, and that the operation was entirely unattended with pain; and demonstrated to Dr. Wells and myself, in the most conclusive manner, the anæsthetic properties of ether vapor." Still, there is nothing stated to enable any information to be obtained touching this important operation, beyond what Dr. Marcy himself chooses to communicate. Wells (at p. 13 of his first pamphlet, March, 1847, after having made two previous publications without any allusion to it at all,) thus refers to it: "Let it be observed, however, that at this time, (November, 1844,) *while we had the subject under consideration*, a surgical operation was performed at Dr. Marcy's office under the influence of sulphuric ether, as is proved by affidavit. **THE DOCTOR THEN ADVISED ME BY ALL MEANS TO CONTINUE THE USE OF NITROUS OXIDE GAS.**" And yet, in 1849, it is pretended that the operation was entirely successful and ought therefore to have

led "by all means," to the contrary advice! Testimony like this cannot be expected to produce conviction.

As to the alleged operation, no one has ever been able to hear of it, except through Dr. Marcy. Anxious to prove the matter, I offered a reward of one hundred dollars, in Hartford, to any one who could tell the name of the patient, or give me any means to find him. On this point, I beg to refer to the statement of Mr. Cornwall, my counsel there, at p. 133 Appendix. The failure to produce, indicate, or in any degree describe "*the young man*," under these circumstances, is entirely consistent with my view of Dr. Marcy's evidence.

The facts connected with Wells's own conduct and publications in this matter are worthy of attention in this connexion.

After his remarkable letter of October, 1846, and when the discovery by the undersigned had assumed its full magnitude and importance, Wells first appears as a claimant before the public, on the 7th December, 1846, (Appendix, p. 10) in the Hartford Courant, two years after his pretended discovery, and limits his pretensions to having had a tooth drawn himself, and afterwards having performed similar operations for "twelve or fifteen" others under the influence of nitrous oxide. No allusion is made to any experiment with ether, or to any subsequent use of nitrous oxide; but his whole career is there summed up with his failure at Boston, in 1845. His letter to the undersigned of October, 1846, shows his appreciation of the advantages that would belong to the discoverer. He says, "*If the operation of administering the gas is not attended with too much trouble, and will produce the effect you state, it will undoubtedly be a fortune to you, provided it is rightly managed.*" After publishing his letter of the 7th of December, he proceeds to Europe upon a speculation in pictures, (Williams, Appendix, p. 130, Bolles, Appendix, p. 14, Olmstead, Appendix, p. 12, &c.) Arriving in Paris, he finds the whole scientific world agitated with this subject. He makes no claims, (see B. P. Poore, p. 469.) It is not till after Dr. Brewster, of Paris, reads the publication by Marcy and Ellsworth, taken from the Journal of Commerce, and sends to him, Wells, "begging him to call on him (Brewster) and tell him if he is the true man," that he is stimulated to make the publication in Galignani's Messenger, (App. p. 118,) which is copied in the Boston Atlas, (B. P. Poore, p. 469—Letter of Brewster dated 24th of March, 1847, App. p. 131.) In this publication, his "twelve or fifteen" have become "fifty," and his experiments, theretofore stated to have been with nitrous oxide alone, are claimed to have been with ether also. He is entirely unprepared with any proof. (Brewster, App. p. 110.) Dr. Brewster, to the New York Journal of Commerce, says: "Imagine to yourselves, Messrs. Editors, a man to have made this more than brilliant discovery and visiting Europe without bringing with him his proof." Again Brewster (letter

to Morton, dated 21st March, 1847—Appendix, p. 130,) says: "*Dr. Wells's visit to Europe had no connexion with this discovery; and it was only after I had seen the letter of Drs. Ellsworth and Marcy, that I prevailed upon him to present his claims to the Academy of Sciences,*" &c.

During what time, and where, were those additional operations performed—thirty-five or thirty-eight in number?

In December, 1846, there were only twelve or fifteen in all—now they are fifty in the space of about two months thereafter.

How had these two months been employed?

He sailed for Europe upon his picture speculations in December—is in Paris engaged in that business, until Brewster, acting on the faith of Marcy's and Ellsworth's publication, urges him to put forth his claim. He then publishes it at Paris. It is not perceived how it is possible for him to account for this quadrupling of his operations upon any other basis of fact, or consistently with the established facts above referred to.

Conforming to this model the publications and affidavits of Ellsworth, Marcy, and Riggs, have on every successive occasion expanded themselves into equal ratio.

Equally remarkable, and inconsistent with fact, is the following preface in the publication made at Paris:

"The less atmospheric air is admitted into the lungs with any gas or vapor, the better—the more satisfactory will be the result of the operation." Appendix 118.

When it is known that the administration of ether in sufficient quantity to produce total insensibility without atmospheric air, occasions certain death, what credit is it possible to give to the assertion of fact made in this publication, by Wells, for the first time, that he had used the ether at all or knew anything of its properties in this respect.

The testimony of the physicians and surgeons of Hartford (Appendix) and its neighborhood, examined by the U. S. Commissioner under the proceeding before referred to, sufficiently shows that even within that limited district the alleged discovery of Wells was not practically regarded as of any value. This is consistent with the judgment which Wells himself pronounced on it after his return from Boston; but is wholly inconsistent with the face now put on it by Drs. Marcy and Ellsworth, the only two who go beyond mere rumor and heresay.

It remains, however, to examine the testimony of John M. Riggs, who alone testifies to the use of the nitrous oxide gas between the period of Wells's abandonment and the discovery by the undersigned.

Attention has already been called to the manner in which by his first and second affidavits, he colors the facts touching the first experiment by Wells, and his own participation in it; and to his confident and reiterated statements about the date, now fully

ascertained to have been false in fact. Not less exceptionable is the tone and spirit of his deposition, No. 2; (Appendix, p. 91,) a tone and spirit which rarely fails to discredit a witness to a greater or less extent before court or jury. In fact the whole deposition wears rather the aspect of a partisan address than of evidence sanctioned by an oath. In March, 1847, his first deposition (Appendix, p. 90,) is made at the instance of Wells himself, and was published in Wells's pamphlet. In November, 1849, his second deposition (Appendix, p. 91) if it can be properly so called, largely expands the first beyond its original scope.

Without taking the time to ascertain minutely in all respects the testimony of this witness, the undersigned will refer to a few prominent points, which entirely discredit him.

1st. In his deposition of November, 1849, he says:

"I also further declare that I was perfectly aware of the anæsthetic properties of the vapor of sulphuric ether during the period above alluded to, and previous to January 1, 1845; and that I made use of the nitrous oxide gas in my dental operations *simply because I BELIEVED THEN, AS I BELIEVE NOW, that the last named agent was more efficient, safer, and altogether preferable to the ether vapor as an anæsthetic agent, and not because I entertained any doubt respecting the pain-preventing properties of the last-named article.*"

AGAIN: SINCE NOVEMBER, 1844, THE NITROUS OXIDE GAS HAS, FOR THE MOST PART, BEEN EMPLOYED BY ME IN MY DENTAL OPERATIONS AS AN ANÆSTHETIC AGENT, IN PREFERENCE TO THE ETHER OR CHLOROFORM. *The ease and comfort with which it may be inhaled, and its entire efficacy, have amply repaid me for the extra trouble of preparing it.*

Upon his examination before the United States Commissioner he produces his book of charges, and, with it before him, testifies that the last charge made by him for operating with nitrous oxide gas was on the 20th November, 1846.—Interrogatories 92, 93, 94.

And, in answer to 148th interrogatory, he says:

"I HAVE NOT USED IT (*nitrous oxide*) SINCE CHLOROFORM WAS INTRODUCED INTO PRACTICE."

2d. In the same deposition he testifies to one or more successful trials made with ether during the year 1844, by Drs. Wells and Marcy.

3d. In the same deposition he testifies to Dr. Morton's having been a pupil of Dr. Wells.

In his examination before the United States Commissioner, the following questions and answers appear:

No. 107. What was the first dental operation you saw Dr. Wells perform after he returned from Boston, in January, 1845, while the patient was under the influence of nitrous oxygen gas?

Ans. I don't remember.

No. 108. WILL YOU SWEAR HE PERFORMED ANY AFTER HIS RETURN, IN 1845?

Ans. I CAN'T DIRECTLY SWEAR THAT HE DID: MY IMPRESSION IS THAT HE DID.

No. 109. Upon whom?

Ans. I DON'T REMEMBER ANY PERSON TO WHOM HE GAVE IT.

In his examination before the United States Commissioner, it clearly appears that he had no knowledge of any such fact; yet the purpose of the deposition of 1849, in this respect, was evidently to verify that fact by his oath. The only case in which it is pretended that ether was used prior to Morton's discovery, is that stated by Dr. Marcy; as to which, it does not appear that any other person but himself has any knowledge of it.

On his examination before the Commissioner, he admits that he has no knowledge of the fact thus verified by him.

On the same examination, after an interval of some thirty-one questions, he proceeds as follows:

No. 140. Do you know of any other person who administered the gas, at this time, in dental or surgical operations, from January 23, 1845, to November 2, 1846?

Ans. I SAW WELLS ADMINISTER IT. I KNOW OF NO OTHER, EXCEPT BY HEARSAY.

No. 141. Will you state to whom you saw Dr. Wells administer the gas, for dental or surgical purposes, between Jan. 23, 1845, and Nov. 2, 1846?

Ans. *I do not recollect the name of any one, it is so long since.*

No. 142. How can you say that it was between those dates?

Ans. I know it by this: December 11, 1844, I extracted a

tooth for Dr. Wells. In January following he went to Boston to exhibit his discovery there. On his return, he used the gas at different times from my apparatus in the back office. From April, 1845, to September, 1845, I think he intermitted his dental business. He gave me a card, and I was to do certain business which he had engaged, and allow him a *per centum*: and I find I did allow him \$25 up to 1st September, 1845.

As to the book from which he testified, it may be sufficient to refer to his evidence to justify the assertion that it is wholly without the credit which belongs to a regular series of entries made at consecutive dates; and that nothing was easier than to have inserted there entries at any subsequent time, if the witness had been disposed so to do. In one instance he distinctly admits the subsequent interlineation of the words "*he felt no pain,*" after a charge made for extracting a tooth.

Among these entries is the following: (Appendix, p. 108.)

Wm. A. Burleigh,

1845, July 26:

To extracting tooth and fang, having administered to him nitrous oxide or exhilarating gas, by which influence he experienced no pain whatever, \$1 50.

Mr. Burleigh's certificate, as published by Wells, is dated March 25, 1847, is as follows:

"A little more than two years since, I learned that Dr. H. Wells, dentist, of this city, had made the discovery that by the use of an exhilarating gas or vapor, he could render the nervous system insensible to pain under severe surgical operations, and that he was using it in his practice with success. Having an opportunity to witness its effect upon several persons during the operation of extracting teeth, I was so delighted and surprised with its manifest success, that I desired a trial of it upon myself. The gas was accordingly administered, and two carious teeth were extracted

from my lower jaw, without the least suffering on my part; though ordinarily, owing to the firmness with which my teeth are fixed in my jaw, I suffer pain from their extraction.

WM. H. BURLEIGH,

Editor of the "Charter Oak."

HARTFORD, March 25, 1847.

It cannot be doubted that this certificate refers to the same fact to which Riggs's entry relates. In 1847, Mr. Burleigh would not have confined himself to the statement of one operation in the year 1845, if he had been subjected to two. He fixed the time just where we suppose it would appear, if rightly entered on Riggs's book, viz: during the experiments made by Wells, a little more than two years before March, 1847, and before the abandonment by Wells. It is to be remembered that Riggs does not testify to the fact that the operation was made on the 26th July, 1845, though his testimony is evidently shaped to produce that impression.

It may be proper to subjoin here a few extracts from the testimony of the witness, upon his interrogation on behalf of the undersigned before the Commissioner, in order to complete this examination of his credibility.

Q. 30. How many persons can you state Dr. Wells administered nitrous oxide to, previous to his going to Boston, of your own personal knowledge?

Ans. I cannot state the exact number, but to quite a number.

Q. 31. How do you know this?

Ans. I know it from being present at many of them.

Q. 32. How many will you swear to as to having seen Wells administer it?

Ans. I cannot say.

Q. 33. Can you say one or a hundred?

Ans. It was more than one, and I don't think it was a hundred.

Q. 33. How many more than one?

Ans. I cannot swear to the exact number.

Q. 34. How many persons did Wells give the gas to that you knew, and what are their names?

Ans. I cannot state any name except J. Gayland Welles at present.

Q. 35. How many of the operations you saw performed by Dr. Wells were upon males.

Ans. All of them were on males.

Q. 36. How many of them did you converse with?

Ans. I cannot tell.

Q. 37. Did you converse with any of them?

Ans. I did.

Q. 38. Were they citizens of Hartford?

Ans. I could not say whether all were citizens of Hartford.

Q. 39. Were any of them except J. G. Welles?

Ans. My impression is some of them resided here.

Q. 40. Have you ever conversed with them since?

Ans. I have met but very few of them—don't recollect conversing with any one except J. G. Welles.

Q. 41. Which of them have you met?

Ans. I do not recollect the names of any one.

Q. 43. When did you first administer nitrous oxide for extracting teeth?

Ans. Before the 1st of January, 1845.

Q. 44. What was the name of the first patient?

Ans. I don't remember. I charged nothing during these experiments, and I have no means of knowing.

Comment upon testimony like this would be superfluous.

It is a fact, however, worthy of remark, that although the examination of this witness was before the 30th November last, and the deposition was kept open until the 18th of December, yet the Commissioner certified that the witness neglected and refused to attend and sign the same and he was compelled to return the deposition without the signature of the deponent.

I forbear to prolong this paper by any further argument. It seems to me that the facts themselves are the most forcible and convincing argument that can be presented. From them it clearly results that this discovery has been the direct result of my own conception, my own labor, my own sacrifices, my own boldness and personal risk. On the other hand, all that my opponents can claim, upon the most partial consideration of their evidence, is that they had, as they say, *an idea* which was never realized, a project which they never executed, a dream from which the world derived no advantage.

I submit my claim to your just and enlightened minds with entire confidence.

With the highest respect,

Your most obedient servant,

W. T. G. MORTON, M. D.

MAJORITY REPORT.

WILLIAM T. G. MORTON, M. D.—SULPHURIC ETHER.

1852.

Referred to a Select Committee.

Dr. WILLIAM H. BISSELL, of Illinois, Chairman.

The Select Committee, to whom was referred the memorial of Dr. William T. G. Morton, asking remuneration from Congress for the discovery of the anæsthetic or pain-subduing properties of sulphuric ether,

REPORT:

That upon the suggestion of the memorialist, that his claim to the discovery was contested by Dr. Charles T. Jackson, of Boston, the chairman addressed to him a letter, notifying him of the proceedings, and of the day when the committee would begin the investigation; advising him, that if he desired to do so, he was at liberty to contest Dr. Morton's application. The chairman received a statement from Dr. Jackson, in reply. Afterwards a memorial from Dr. Jackson was presented to the House, and referred to your committee. And on the 20th day of December, 1851, at a meeting held pursuant to notice, both parties appeared before your committee: Dr. Morton, by his counsel, J. M. Carlisle, Esq., and Dr. Jackson by J. L. Hayes, Esq. In his paper Dr. Jackson presented objections to the inquiry, combining, in effect, a plea that the matter was *res judicata*, and a plea to the jurisdiction of Congress, which were discussed and considered as preliminary to a general investigation. The objections are embodied in the following extracts.

After averring that the discovery was his, and his only, and that he alone gave it to the world, Dr. Jackson proceeds as follows:

"He, the undersigned, therefore, distinctly and unequivocally claims to be the sole and original discoverer of the anæsthetic and

pain-subduing properties of sulphuric ether; and hereby communicates the fact to the Congress of the United States, and declares that his rights have been fully admitted by all the scientific societies that have examined into the claims of the numerous aspirants to the honor of the discovery, and that, in consequence of this result of investigations of all the claimant's pretensions, the National Academy of Sciences of France awarded to the undersigned "the Monthyon prize for the greatest medical discovery," and the government of France awarded to him also the Cross of the Legion of Honor,* and the King of Sweden the gold Medal of Merit. He, the undersigned, therefore, regards the question of discovery settled in the scientific world, and cannot but express his surprise," &c., &c.

See p. 79.

See p. 94.

See note p. 129.

And, again, he "begs that he may be put to no further trouble and expense in defending his scientific rights to the discovery."

And, again, he begs "that he may be allowed to pursue his studies and labors in peace, and not be compelled to spend his valuable time in waiting upon Congress, merely for the purpose of seeing that his rights suffer no detriment."

Your committee being unable to perceive the force of these objections, overruled them, and in the discharge of the duty imposed on them by the House, proceeded with the investigation. A mass of written and printed statements was offered by Dr. Jackson, tending to impeach the character of Dr. Morton, which the latter requested should be received, he being allowed time to produce rebutting evidence, and to adduce evidence on his part impeaching Dr. Jackson's character for veracity, and proving several cases in which he had claimed the inventions† of others as his own. This your committee rejected, deeming it wholly irrelevant to the subject committed to them by the resolution of the House, and leading to a long and laborious trial of many immaterial issues.

See p. 121.

Their first inquiry was directed to the question whether a discovery had in fact been made, important to mankind, and in its importance and value to the American people worthy of national recognition and reward.

The alleged discovery consists in the total annihilation or prevention of pain in the most severe surgical operations, and in obsteric cases, by the inhalation of the vapor of sulphuric ether. It is alleged also that the pain-destroying agent is innocent, producing no injurious consequences to the patient inhaling it. If this be true, and it be indeed a discovery, its national importance, its importance to the human race, is manifest.

Intense pain is regarded by mankind, generally, as so serious an evil that it would have been strange indeed if efforts had not been early made to diminish this species of suffering. The use of

* The medal was given just as much for what Dr. Jackson may have done as a geologist, as for anything he may have had to do with ether, and so was the cross. See p. 129.

† Magnetic Telegraph, &c.

the juice of the poppy, henbane, mandragora, and other narcotic preparations, to effect this object by their deadening influence, may be traced back till it disappears in the darkness of a highly remote antiquity. Intoxicating vapors were also employed, by way of inhalation, to produce the same effects as drugs of this nature introduced into the stomach. This appears from the account given by Herodotus, of the practice of the Scythians, several centuries before Christ, of using the vapor of hemp seed as a means of drunkenness. The known means of stupefaction were very early resorted to, in order to counteract pain produced by artificial causes. In executions, under the horrible form of crucifixion, soporific mixtures were administered to alleviate the pangs of the victim. The draught of vinegar and gall, or myrrh, offered to the Saviour in his agony, was the ordinary tribute of human sympathy extorted from the bystander by the spectacle of intolerable anguish.

That some letheon anodyne might be found to assuage the torment of surgical operations as they were anciently performed, cauterizing the cut surfaces, instead of tying the arteries, was not only a favorite notion, but it had been in some degree, however imperfect, reduced to practice. Pliny, the naturalist, who perished in the eruption of Vesuvius, which entombed the city of Herculaneum, in the year 79, bears distinct and decided testimony to this fact.

"It has a soporific power," says he in his description of the plant known as the mandragora or circeius—"It has a soporific power on the faculties of those who drink it. The ordinary potion is half a cup. It is drunk against serpents, and *before cuttings and puncturings*, lest they should be felt." (*Bibitur et contra serpentes, et ante sectiones, punctionesque, ne sentiantur.*)

When he comes to speak of the plant *eruca*, called by us the rocket, he informs us that its seeds, when drunk, infused in wine, by criminals about to undergo the lash, produce a certain callousness or induration of feeling, (*duacitiam quondam contra sensum inducere.*)

Pliny also asserts that the stone *Memphitis*, powdered and applied in a liniment with vinegar, will stupify parts to be cut or cauterized, "for it so paralyzes the part that it feels no pain; *nec sentit cruciatum.*"

Dioscorides, a Greek physician of Cilicia, in Asia, who was born about the time of Pliny's death, and who wrote an extensive work on the materia medica, observes, in his chapter on mandragora—

1. "Some boil down the roots in wine to a third part, and preserve the juice thus procured, and give one cyathus of it in sleeplessness and severe pains, of whater part; also, *to cause the*

insensibility—to produce the anæsthesia (*poiein anaisthesian*) of those who are to be cut or cauterized.”

2. “There is prepared, also, besides the decoction, a wine from the bark of the root, three minae being thrown into a cask of sweet wine, and of this three cyathi are given to those who are to be cut or cauterized, as aforesaid; for being thrown into a deep sleep, they do not perceive pain.”

3. Speaking of another variety of mandragora, called *morion*, he observes, “medical men use it also for those who are to be cut or cauterized.”

Dioscorides also describes the stone *Memphitis*, mentioned by Pliny, and says that when it is powdered and applied to parts to be cut or cauterized, they are rendered, *without the slightest danger*, wholly insensible to pain. Matthiolus, the commentator on Dioscorides, confirms his statement of the virtues of mandragora, which is repeated by Dodoneus. “Wine in which the roots of mandragora has been steeped,” says this latter writer, “brings on sleep, and appeases all pains, so that it is given to those who are to be cut, sawed, or burned, in any parts of their body, that they may not perceive pain.”

The expressions used by Apuleius, of Madaura, who flourished about a century after Pliny, are still more remarkable than those already quoted from the older authors. He says, when treating of mandragora, “If any one is to have a member mutilated, burned, or sawed, (*mutilandum, comburendum, vel serrandum*,) let him drink half an ounce with wine, and let him sleep till the member is cut away, without any pain or sensation, (*et tantum dormiet, quosque abscindatur membrum aliquo sine dolore et sensu.*”)

It was not in Europe and in Western Asia alone that these early efforts to discover some letheon were made, and attended with partial success. On the opposite side of the continent, the Chinese, who have anticipated the Europeans in so many important inventions, as in gunpowder, the mariner's compass, printing, lithography, paper money, and the use of coal, seem to have been quite as far in advance of the accidental world in medical science. They understood, ages before they were introduced into Christendom, the use of substances containing iodine for the cure of the goitre, and employed spurred rye, ergot, to shorten dangerously prolonged labor in difficult accouchments. Among the therapeutic methods confirmed by the experience of thousands of years, the records of which they have preserved with religious veneration, the employment of an anæsthetic agent to paralyze the nervous sensibility before performing surgical operations, is distinctly set forth. Among a considerable number of Chinese works on the pharmacopæia, medicine, and surgery in the National Library at Paris, is one entitled, *Kou-kin-i-tong*, or general collection of ancient

and modern medicine, in fifty volumes quarto. Several hundred biographical notices of the most distinguished physicians in China are prefixed to this work. The following curious passages occur in the sketches of the biography of *Hoa-tho*, who flourished under the dynasty of *Wei*, between the years 220 and 230 of our era. "When he determined that it was necessary to employ acupuncture, he applied it in two or three places; and so with the *moxa*, if that was indicated by the nature of the affection to be treated. But if the disease resided in parts upon which the needle, *moxa*, or liquid medicaments could not operate, for example in the bones, or the marrow of the bones, in the stomach, or the intestines, *he gave* the patient a preparation of hemp, (in the Chinese language *mayo*,) and after a few moments he became as insensible as if he had been drunk or dead. Then, as the case required, he performed operations, incisions, or amputations, and removed the cause of the malady, then he brought together and secured the tissues, and applied liniments. After a certain number of days, the patient recovered, *without having experienced during the operation the slightest pain*. *Hoa-tho* has published, under the title of *Nei-tchao-thou*, anatomical plates, which exhibit the interior of the human body, which have come down to our times, and enjoy a great reputation."

It will be noticed that the agent employed by *Hoa-tho*, which he calls *ma-yo*, hemp medicine, and which is called in the annals of the later *Hans*, *mofa-san*, or hemp essence powder, is the extract of the same plant mentioned by Herodotus, twenty-three centuries ago, *canuabis Indica*, the *haschisch* of the Arabs, which is now extensively cultivated in Hindostan, for the purpose of manufacturing the substance called *Bhang*, to produce a peculiar species of intoxication, at first seductive and delicious, but followed in its habitual use by terrible effects upon the constitution.

Almost a thousand years after the date of the unmistakeable phrases quoted from Apuleius, according to the testimony of William of Tyre, and other chroniclers of the wars for the rescue of the holy sepulchre, and the fascinating narrative of *Marco Polo*, a state of anæsthesia was induced for very different purposes. It became an instrument in the hands of bold and crafty impostors to perpetrate and extend the most terrible fanaticism that the world has ever seen.

The employment of anæsthetic agents in surgical operations, was not forgotten or abandoned during the period when they were pressed into the appalling service just described. In the thirteenth century, anæsthesia was produced by inhalation of an anodyne vapor, in a mode oddly forestalling the practices of the present day, which is thus described in the following passage of the surgical treatise of Theodoric, who died in 1298. It is the receipt for the "*spongia somnifera*," as it is called in the rubric :

Here we find in the nineteenth century the principle advanced and acted upon, viz: That by the inhalation of vapor or gas, surgical operations may be performed without pain.

"The preparation of a scent for performing surgical operations, according to Master Hugo. It is made thus: Take of opium and the juice of unripe mulberry, of hyoscyamus, of the juice of the hemlock, of the juice of the leaves of the mandragora, of the juice of the woody ivy, of the juice of the forest mulberry, of the seeds of lettuce, of the seed of the burdock, which has large and round apples, and of the water hemlock, each one ounce; mix the whole of these together in a brazen vessel, and then in it place a new sponge, and let the whole boil, and as long as the sun on the dog days, till it (the sponge) consumes it all, and let it be boiled away in it. As often as there is need of it, place this same sponge into warm water for one hour, and let it be applied to the nostrils till he who is to be operated on (*qui incidentus est*) has fallen asleep; and in this state let the operation be performed, (*et sic fiat chirurgia.*) When this is finished, in order to rouse him, place another, dipped in vinegar, frequently to his nose, or let the juice of the roots of fenigreek be squirted into his nostrils. Presently he awakens."

Again, in the nineteenth century we find a similar means resorted to.

A French physician, residing in the neighborhood of Toulouse, M. Dauriol, asserts that, in the year 1832, he employed a method analogous to that of Theodoric, and specifies five cases in which he succeeded in performing painless operations.

September 23, 1828, M. Girardin read a letter before the Academy of Medicine, addressed to his Majesty Charles X, by Mr. Hickman, a surgeon of London, in which this surgeon announces a means of performing the most delicate and most dangerous operations without producing pain in the individuals submitted to them. This proceeding consists in suspending insensibility by the methodical introduction of certain gases into the lungs. Mr. Hickman had tested his proceedings by repeated experiments on animals.

See Sir Humphrey Davy's suggestion in connection with the above, and Dr. Wells' attempt to revive these investigations, next page.

Guy de Chauliac and Brunus are the only authors on medicine and surgery, besides Theodoric, who, during this period, allude to prophylactic agents to avert pain. It may be presumed, therefore, that their employment was not generally very successful. Probably bad effects, such as congestion and asphyxia, and sometimes ending in death, followed their unskillful empiricism. J. Canappe, the physician of Francis I, in his work printed at Lyons in 1532, *Le Guidon pour les Barbiers et les Chirurgiens*, the Surgeon's and Barber's Guide, describes the method of Theodoric and his followers, as already given above, and adds: "*Les autres donnent opium à borie, et font mal, spécialement s'il est jeune; et le aperçoivent, car ce est avec une grande bataille de vertu animale et naturelle. J'ai ouï qu'ilz encourent manie, et par conséquent la mort.*"

Thus far had the superinduction of anæsthesia, as a preventive of pain, made its way into surgical practice in the middle ages; and even then it must have been most beneficial in its influence

in diminishing the mass of human suffering. Down to the time when Ambrose Paré, in the sixteenth century, suggested the application of slender ligatures to bleeding arteries, to arrest the hemorrhage of surgical wounds, no other means were employed to stem the flow of blood, after capital operations, than by scorching over the raw surface with a red-hot iron, or plunging it into boiling pitch, or applying other strong potential cauteries. "The horrors of the patient, and his ungovernable cries, the hurry of the operators and assistants, the sparkling of the (heated) irons, and the hissing of the blood against them, must have made terrible scenes," says Mr. John Bell; "and surgery must, in those days, have been a horrible trade."

Haller, Deneux, and Blandin, report cases of operations performed upon patients under the influence of alcoholic intoxication, in obstetric and other cases, without pain; and Richerand has suggested that this expedient should be employed in the management of dislocations difficult to be reduced. For obvious reasons it has not been adopted by the profession. Mesmerism, also, has been the subject of grave discussions, and of some extraordinary statements, in this connection; but, whatever may be thought of the individual cases certified by witnesses, it is not too much to say that it is not likely ever to become a remedy of general application.

Opium has in all ages been employed to assuage pain. Van Helmont calls it the specific gift of the Creator. Guy de Chauliac used it, and many surgeons have followed his example in their operations. Sassard, surgeon of the hospital *de la Charite*, strongly recommended this practice in the last century. But the irregular action of opium, the excitability which it sometimes occasions, its bad effects upon the digestive organs and the nervous system, and the length of time during which its influence remains, are decisive objections to this agent. Dr. Esdaille has recently experimented upon this subject at Calcutta, but the results are altogether unfavorable.

Dan Frieten, Juvet, and Teden, have advised that mechanical compression should be employed to prevent pain in amputations, but this expedient proved but partially effectual, and has serious inconveniences which require it to be rejected without question.

The application of ice will also diminish pain under these circumstances. Baron Larry, after the battle of Eylau, found a remarkable insensibility in the wounded who suffered amputations, owing to the intense cold. The injury to the general health of the patient is not, however, compensated by the imperfect and uncertain success of this remedy.

After the great improvement brought about by the introduction of ligatures, the inducement to seek for a safe and effectual nepenthe, though still great, was vastly less than before. No practical advance deserving to be mentioned was made in this direc-

tion until the great discovery of the available effects of sulphuric ether.

This substance has been known since the thirteenth century. Its formation was accurately described by Valerius Cordus in the sixteenth century. Frobenius first designated it ether, and published an account of it in the philosophical transactions in 1730.

Its use as a medical agent, first alluded to by Valerius Cordus, and mentioned by Hoffman, Cullen, Alston, Lewis, and Monroe, and other writers of the last century, has long been familiarly known. The history of its use by inhalation commenced with the pamphlet published in 1795, by Richard Pearson; and several communications from the same Dr. Pearson are to be found in the work of Dr. Beddoes on Factitious Airs, published at Bristol, England, in 1796. The same work contains a letter from one of Dr. Thornton's patients, giving an account of his use of ether by Dr. Thornton's advice, in a case of pectoral catarrh. He says, "it gave almost immediate relief both to the oppression and pain in the chest." On the second trial he inhaled two spoonsfull, with "immediate relief as before, and I very soon after fell asleep." In 1815, Nysten, in the Dictionary of Medical Sciences, speaks of the inhalation of ether as familiarly known for *mitigating pains* in colic. For the last fifty years, most therapeutic authors mention its use by inhalation in asthma, &c., as Duncan, Murray, Brande, Christison, Pereira,* Thompson, Barbier, Wendt, Vogt, Sundelin, &c. Effects analogous to intoxication, when ether is inhaled, are stated by American authors, as Godman, (1822,) Mitchel, (1832,) Professor Samuel Jackson, (1833,) Wood & Bache, (1834,) Miller, (1846, and early in that year.)

Dr. John C. Warren, in his work on etherization, says: "The general properties of ether have been known for more than a century, and the effect of its inhalation, in producing exhilaration and insensibility, has been understood for many years, not only by the scientific, but by young men in colleges and schools, and in the shop of the apothecary, who have frequently employed it for these purposes."

See Warren's certificate to Morton p. 38.

Dr. Gould 40th int. p. 265.

About a half a century since, Sir Humphrey Davy, who had acted as an assistant to Dr. Beddoes, in the commencement of his career, suggested the possibility that a pain-subduing gas might be inhaled, as follows; "As *nitrous oxide*, in its extensive operation, appears capable of destroying physical pain, it may probably be used with advantage during surgical operations in which no great effusion of blood takes place." *Researches on Nitrous Oxide*, p. 556. Upon this hint, Dr. Horace Wells, of Hartford, Connecticut, in the autumn of the year 1844, experimented with *nitrous oxide gas* in the extraction of teeth; but this gas being found on trial to be unavailable for the desired purposes, he aban-

* See page 257; Morton's purchase of Pereira in 1845.

done his experiments in December, 1844, and tried none afterwards. (*Appendix pp. 113, 116.*)

Late in the autumn of 1844, Dr. E. E. Marcy, of Hartford, Conn., as appears from his own affidavit and that of F. C. Goodrich, of Hartford, suggested to Dr. Wells to substitute sulphuric ether for nitrous oxide, and informed him of its known effects, and how to make it. Marcy "administered the vapor of rectified sulphuric ether in my [his] office to a young man; * * * and after he had been rendered insensible to pain, cut from his head an encysted tumor of about the size of an English walnut. The operation was entirely unattended with pain." Dr. Marcy concluded that nitrous oxide was more safe, equally efficacious, and more easily administered than ether, and therefore to be preferred, and retained that opinion to December, 1849.

Dr. E. R. Smilie, of Boston, in October, 1846, asserted that he had employed successfully an *ethereal* tincture of opium to subdue pain under the knife. He states that he applied this tincture by inhalation in the spring of 1844; that he opened a serious abscess on the neck of the late Mr. John Johnson, while he was rendered unconscious of pain from the operation by this tincture.

The Paris Medical Gazette, of March, 1846, gives an account of remarkable experiments performed by M. Ducos, by ether, on animals, exhibiting most of the phenomena since witnessed in the human body. Sir Benjamin Brodie tried it on Guinea pigs which it put to sleep and killed. He doubted its safety.

Notwithstanding this long series of efforts to procure a true nepenthe, the object still seemed unattainable to the wisest and boldest members of the surgical profession. Velpeau, than whom no higher authority can be quoted, said, in 1839, "to avoid pain in surgical operations is a chimera which it is not allowable to pursue at the present day. The cutting instrument, and pain, in operative medicine, are two words which never present themselves singly to the mind of the patient, and of which we must necessarily admit the association." Orfila, in his *Toxicology*, declares absolute insensibility to pain under surgical operations by etherization, to be a discovery entirely new. Dr. J. C. Warren says, "The discovery of a mode of preventing pain in surgical operations has been an object of strong desire among surgeons from an early period. In my surgical lectures I have almost annually alluded to it, and stated the means which I have usually adopted for the attainment of the object. I have also freely declared that, notwithstanding the use of very large doses of narcotic substances, this desideratum had never been satisfactorily obtained. The successful use of any article of the materia medica for this purpose, would therefore be hailed by me as an alleviation of human suffering." Finally, Sir Benjamin Brodie, in a discourse at St. George's Hospital, at so late a date as October 1, 1846, alluding to mesmerism, said, "There is no greater desideratum,

See his publications in New York Journal of Commerce, 1846, 1847, opposing Morton and Jackson, and then no allusion to this experiment.

either in medicine or surgery, than to have the means of allaying or preventing bodily pain, not only in surgical operations, but in other cases also, but there is good reason to apprehend that it has not been reserved for the revival of animal magnetism under a new name, to accomplish that *for which all physicians and surgeons have been looking in vain, from the days of Hippocrates down to the present time.*" Testimonials like these might be multiplied indefinitely, but the names already quoted are of those universally recognised on both continents as the most illustrious cultivators of medical science. The desideratum of which Brodie despaired on the 1st of October, 1846, had been found, and its efficacy demonstrated within the twenty-four hours preceding the delivery of his lecture. And in a few days after, the tidings were borne with the full speed of steam across the Atlantic, and dispersed over Europe and Asia, which for two thousand years had been looking for it in vain.

This sketch of the progress of human knowledge as to the inhalation of sulphuric ether and its effects, and as to attempts to superinduce anæsthesia by various agents in ancient and modern times, though by no means scientifically complete, is sufficiently so for the purpose for which your committee have introduced it, to show what was and what was not known upon the subject previously to the investigations and experiments of this memorialist.

Your committee are satisfied, upon a full and careful examination of all the evidence before them, that until the 30th of September, 1846, it was not known that sulphuric ether might safely be inhaled in sufficient quantity to produce total insensibility to pain under the severest surgical operations. The safety of this agent, its certainty, its efficiency, are now established beyond question, and acknowledged by the whole scientific world. This great discovery, by far the noblest contribution which medical science has made to humanity within the present century, and with which, looking through all ages, no other except that of Jenner can take rank, sprung to light in the year 1846, in the State of Massachusetts; and the memorialist, Dr. Wm. T. G. Morton, claims it as his own.

Certain it is, he was the first who exhibited it to the world, and the only one who publicly used or claimed it, until after its reality and efficacy had been established. The honor of the discovery, therefore, must be awarded to him, unless some one show, by satisfactory evidence, an older and a better title. From the 30th of September, 1846, until the 2d day of January, 1847, during which time this discovery passed successfully, the *experimentum crucis*, Dr. Morton was in full, and sole, and undisputed possession. For a time, he held the operative agent as a secret, but at last disclosed it, by letter, to the faculty of the Medical Hospital at Boston, with a view to its trial, in what is called in surgery a *capital case*. It was not until some time after this trial

See Frost's
certificate.
p. 257.

See Dr.
Bigelow.
p. 319.

had been made, and proved successful, that a claim was publicly set up by any one to the honor or a share in the honor of the discovery.

The account given by Dr. Morton of the circumstances which directed his mind to the investigation, is simple and natural, and in every step corroborated by some marked circumstance, proved by the testimony of one or more disinterested witnesses. A narrative such as his, so supported, goes far to sustain the title which possession, undisputed for a time, would have given him. It was prepared by him, and presented to the Academy of Arts and Sciences at Paris, by M. Arago, in July, 1847. Notwithstanding its length, we have thought proper to insert it entire.

“MEMOIR.

“In the summer of 1844, being in the practice of dentistry and desirous to improve myself in chemical and medical knowledge, I studied in the office of Dr. Charles T. Jackson, of Boston, and, in order to employ my time to the utmost advantage, I resided in his family. One day, in casual conversation upon my profession of dentistry, I spoke of the operation of destroying the nerve of a tooth, and remarked that there was always doubt whether the tooth could be restored to usefulness, inasmuch as the arsenic produced an irritation, and left a soreness often permanent. Dr. Jackson said, in a humorous manner, that I must try some of his tooth-ache drops, and proceeded to tell me that, at a time when he practised medicine, he occasionally extracted teeth for particular patients, and that in one instance a patient who could not summon courage for the operation asked him to apply something to alleviate the pain. He applied ether, and with success, for a few days afterwards a friend of this patient called to obtain some of the ‘tooth-ache drops,’ as he called them; but Dr. Jackson, not wishing to be troubled with dental business, told him he had none. Dr. Jackson then added, that as this ether might be applied with advantage to sensitive teeth, he would send me some. The conversation then turned upon the effect of ether upon the system, and he told me how the students at Cambridge used to inhale sulphuric ether from their handkerchiefs, and that it intoxicated them, making them reel and stagger. He gave no further intimation of the effect of ether, or of the manner of applying it. I may add that Dr. Jackson has confirmed my account of this conversation in his own statement to Dr. Gould. See Jackson’s certificate, p. 59.

“In a few days after this conversation, Dr. Jackson sent me a bottle of chloric ether, highly rectified, as he had offered. At the same time he sent a bottle to two other dentists of high respectability in Boston. I made an experiment with this ether in destroying the sensibility of a valuable tooth of a patient, Miss —, by direct application, telling her that the operation would be slow. See Dr. Gould, p. 265.
Miss Parrott, Gloucester.

I was obliged to apply it several times, but in the end the sensibility seemed to be removed, and the tooth is now, to my knowledge, in a useful condition.

"About this time the wife and aunt of Dr. Jackson were under my treatment for dental purposes, and it was necessary to extract teeth in each case, the operation being painful and the ladies showing an unusual degree of sensitiveness. The last named lady, in particular, before the extracting of each tooth, remained several hours in the operating chair, unable to summon courage to endure the operation, and begging to be mesmerized, or that I would give her something to make her insensible. Dr. Jackson was present and made efforts to encourage the lady, but did not suggest any mode of producing insensibility. *His suggestions had not gone beyond the direct application of ether, in the same manner that laudanum and other narcotics have always been applied to sensitive teeth.*

"The successful application I had made of the ether in destroying the sensibility of a tooth, together with what Dr. Jackson told me of its effects when inhaled by the students at college, awakened my attention, and having free access to Dr. Jackson's books, I began to read on the subject of its effects upon the animal system. I became satisfied that there was nothing new or particularly dangerous in the inhaling of ether, that it had long been the toy of professors and students, known as a powerful anti-spasmodic, anodyne, and narcotic, capable of intoxicating and stupefying, when taken in sufficient quantity. I found that even the apparatus for inhaling it was described in some treatises, but in most cases it was described as inhaled from a saturated sponge or handkerchief. Having some of the ether left which Dr. Jackson had sent me, I inhaled it from a handkerchief, but there was not enough to produce a greater effect than exhilaration followed by headache.

"While investigating this subject I was taken quite ill, and it being the middle of summer, I was advised by my physician to go into the country. I took with me from Dr. Jackson's library, and obtained in other ways, several books treating on this and other subjects. I spent two months at the residence of my father-in-law, in Connecticut. While there I procured ether from the druggists, and made experiments upon birds and other animals, endeavoring to get them under the effects of inhalation from it. These experiments produced no satisfactory result, and they being known among my friends, I was mortified and vexed, and bottled up the subjects where they remain to this day.

"In the autumn I returned to Boston, and finding that my business, owing to its interruption, required my constant attention, I was not able to pursue the investigation at that time.

"In the course of the winter, (1844-'5) Dr. Horace Wells, of Hartford, Connecticut, a dentist, and formerly my partner, came

to Boston, and desired me to aid him in procuring an opportunity to administer the nitrous oxide gas, which he said he believed would destroy or greatly alleviate pain under surgical operations. I readily consented, and introduced him to Dr. George Hayward, See Dr. Haywood. an eminent surgeon, who offered to permit the experiment, but as the earliest operation was not to be performed under two or three days, we did not wait for it, but went to Dr. Warren, whom we found engaged with his class. He told us that his students were preparing to inhale it that evening, for sport, and offered to announce the proposal to them, and ask them to meet us at the college. In the evening Dr. Wells and myself went to the hall, and I took my instruments. Dr. Wells administered the gas, and extracted a tooth, but the patient screamed from pain, and the spectators laughed and hissed. The meeting broke up and we were looked upon as having made ourselves very ridiculous. I saw nothing more of Dr. Wells, but he left my instruments at my office very early the next morning, and went directly home. In July, being again in Connecticut, I called on Dr. Wells, and we spent some time in adjusting our former partnership accounts. He had then given up dentistry, and was engaged in conducting an exhibition of birds, which he said insured him better health. I went with him to the office of Dr. Riggs, where I spoke of the gas, and asked them to give some to me; but Dr. Wells gave me to understand that he had abandoned the experiment, thinking it could have no practical value.

"In the autumn of 1845, I returned to my business, which had now become almost exclusively mechanical dentistry, or plate work, requiring me often to extract a great number of teeth at a time. Many of my patients suffered extremely, and some were obliged, as is the experience of every dentist, to postpone or abandon the supplying full sets of teeth. I had, therefore, everything to call my attention to the destroying or mitigating of pain under these operations, and great motive to induce me to follow up the subject. Finding that when closed up in a hollow tooth, and sealed with wax, ether would gradually destroy the sensibility of the part, I reasoned that perhaps when inhaled it might destroy or greatly alleviate sensibility to pain generally.

"In the spring of 1846, Thomas R. Spear came to study with me, and hearing me converse upon the subject, he said he had inhaled ether at the Lexington Academy, where he was educated, and described to me its effects. This increased my interest in the subject, and I determined, as soon as the pressure of the spring business was over, to devote myself to it. In the mean time I tried an experiment upon a water spaniel, inserting his head in a jar having sulphuric ether at the bottom. This was done in the presence of two persons at my house in West Needham, where I reside during the summer months. After breathing the vapor for some time, the dog completely wilted down in my hands. I then See Hayden, p. 193.

removed the jar. In about three minutes he aroused, yelled loudly, and sprung some ten feet into a pond of water.

See Hay-
den again
p. 193. "Immediately after this experiment, I waited on Dr. Grenville G. Hayden, a young dentist, told him my purpose, and made an agreement with him to come to my office and take charge of my business, that I might devote myself more exclusively to this sub-

See Dana,
p. 196. ject. The agreement was drawn by R. H. Dana, jr. Esq., to whose letter in the appendix I take the liberty to refer the Academy in this connection. As soon as Dr. Hayden became acquainted with my business, I began to devote myself to my experiments. I inhaled some chloric ether and morphine, the effect of which was drowsiness followed by lassitude and headache.

See Hay-
den. "Early in August I asked Dr. Hayden to procure me a four-ounce vial of sulphuric ether from Mr. Burnett, a druggist much relied upon by chemists. He did so, and I tried to induce him to take it. As he declined, I took half of it into the country to try again upon my dog. Just as I had got it ready, the dog sprang and threw over the jar. I felt vexed, and resolved to take it myself, and did so the next day, at my office. I inhaled from my handkerchief all the ether that was left, but was not completely lost, yet thought myself so far insensible that I believe that a tooth could have been drawn with but little pain or consciousness. I was unwilling to send to Burnett's again for the same article, he being a near neighbor, and his young men well acquainted with mine, lest the knowledge of my experiments should get abroad. I accordingly sent a student, William P.

See Lea-
vitt, p. 196. Leavitt, to druggists in different parts of the city, Brewers, Stevens & Co., a firm in excellent standing, with directions to get sulphuric ether. After some persuasion I induced Spear, who had taken it at school, to inhale it. He did so, and became so far insensible as to drop the handkerchief, and seemed very drowsy and torpid. As this passed off he became excited and furious, so that he had to be held down in the chair; but this subsided, and on coming to he expressed himself delighted with his sensations. Leavitt then took it, with much the same effect. I was much discouraged by these attempts. The effects produced were not such as I sought for, nor were the young men affected in the same manner that I had been, and as I had observed the dog to be. They were much more excited and less insensible. Yet I cannot help remarking, in this connection, that had this sulphuric ether been pure and highly rectified, I should have demonstrated its effects then, instead of at the subsequent period in September. This ether has since been analyzed, as appears by the affidavits in the appendix, and found to contain a large portion of alcohol, sulphur acids, and other impurities.

See Bur-
nett,
376. "This experiment was early in August; and it being hot weather, and I being somewhat out of health, I went into the country, and abandoned the experiments until the middle of September.

With the autumn and the restoration of health, my ambition led me to resume my experiments; and I mentioned to Dr. Hayden that I feared there was so much difference in the qualities of ether, that in so delicate a matter there would be great difficulty in bringing about any generally useful and reliable results.

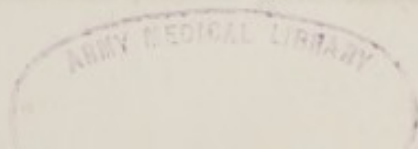
"Thinking that a surer effect might be produced by inhaling the ether through some apparatus, I called repeatedly on Mr. Wightman, a philosophical instrument-maker, for the purpose of procuring or contriving an apparatus. While examining his bags for inhaling nitrous oxide gas, the thought struck me that I could put the ether into one of these, and by making an opening to be closed by a valve, for the admission of atmospheric air, could convert it into an inhaling apparatus. Upon second thought, I had an impression that ether would dissolve India rubber, and put the question to Mr. Wightman. He thought it would. I then put the same question as to oil silk. He said he did not know, but advised me to consult a chemist, and named Dr. Jackson. I took from Mr. Wightman a glass tunnel, purchased an India rubber bag on my way, and returned to my office. I then sent Leavitt to Dr. Gay, a chemist, to ask the simple question whether ether would dissolve India rubber. He returned, saying that Dr. Gay was not in. In the meantime I became satisfied that the bottle and glass I had were not large enough for my purposes, and not wishing to go to unnecessary expense, I said to Dr. Hayden that I would borrow a gas bag from Dr. Jackson's laboratory. He then suggested to me to ascertain from Dr. Jackson something as to the different qualities and preparations of ether, with which he said chemists were always familiar. I approved of the suggestion, but feared Dr. Jackson might guess what I was experimenting upon, and forestall me. I went to Dr. Jackson's, therefore, to procure a gas-bag, also with the intention of ascertaining something more accurately as to the different preparations of ether, if I should find that I could do so without setting him upon the same track of experiment with myself. I am aware that by this admission I may show myself not to have been possessed by the most disinterested spirit of philosophic enthusiasm, clear of all regard for personal rights or benefits; but it is enough for me to say that I felt I had made sacrifices and run risks for this object; that I believed myself to be close upon it, yet where another, with better opportunities for experimenting, availing himself of my hints and labors, might take the prize from my grasp.

"I asked Dr. Jackson for his gas-bag. He told me it was in his house. I went for it, and returned through the laboratory. He said, in a laughing manner, 'Well, Doctor, you seem to be all equipped, minus the gas.' I replied, in the same manner, that perhaps there would be no need of having any gas, if the person who took it could only be made to believe there was gas in it, and alluded to the story of the man who died from being made

See Wightman. p. 232
7th interrogatory.

See Leavitt. p. 196

See Hayden. p. 193



See Wight-
man. p. 232
8th inter.

to believe that he was bleeding to death, there being in fact nothing but water trickled upon his leg; but I had no intention whatever of trying such a trick. He smiled and said that was a good story, but added, in a graver manner, that I had better not attempt such an experiment, lest I should be set down as a greater humbug than Wells was with his nitrous oxide gas. Seeing that here was an opportunity to open the subject, I said, in as careless a manner as I could assume, why cannot I give the ether gas? He said that I could do so, and spoke again of the students taking it at Cambridge. He said the patient would be dull and stupified, that I could do what I pleased with him, that he would not be able to help himself. Finding the subject open, I made the inquiries I wished as to the different kinds and preparations of ether. He told me something about the preparations, and thinking that if he had any it would be of the purest kind, I asked him to let me see his. He did so, but remarked that it had been standing for some time, and told me that I could get some highly rectified at Burnett's. As I was passing out, Dr. Jackson followed me to the door, and told me that he could recommend something better than the gas-bag to administer the ether with, and gave me a flask with a glass tube inserted in it.

See Caleb
Eddy. page
286.

"I procured the ether from Burnett's, and taking the tube and flask, shut myself up in my room, seated in the operating chair, and commenced inhaling. I found the ether so strong that it partially suffocated me, but produced a decided effect. I then saturated my handkerchief and inhaled it from that. I looked at my watch and soon lost consciousness. As I recovered, I felt a numbness in my limbs, with a sensation like nightmare, and would have given the world for some one to come and arouse me. I thought for a moment I should die in that state, and that the world would only pity or ridicule my folly. At length I felt a slight tingling of the blood in the end of my third finger, and made an effort to touch it with my thumb, but without success. At a second effort, I touched it, but there seemed to be no sensation. I gradually raised my arm and pinched my thigh, but I could see that sensation was imperfect. I attempted to rise from my chair, but fell back. Gradually I regained power over my limbs and full consciousness. I immediately looked at my watch, and found that I had been insensible between seven and eight minutes.

See Frost's
certificate.
p. 257.

"Delighted with the success of this experiment, I immediately announced the result to the persons employed in my establishment, and waited impatiently for some one upon whom I could make a fuller trial. Toward evening, a man, residing in Boston, whose certificate is in the appendix, came in, suffering great pain, and wishing to have a tooth extracted. He was afraid of the operation, and asked if he could be mesmerized. I told him I had something better, and saturating my handkerchief, gave it to him

to inhale. He became unconscious almost immediately. It was dark, and Dr. Hayden held the lamp, while I extracted a firmly rooted bicuspid tooth. There was not much alteration in the pulse, and no relaxation of the muscles. He recovered in a minute, and knew nothing of what had been done to him. He remained for some time talking about the experiment, and I took from him a certificate. This was on the 30th of September, 1846. This I consider to be the first demonstration of this new fact in science. I have heard of no one who can prove an earlier demonstration. If any one can do so, I yield to him the point of priority in time.

See Hayden.

"I will make a single remark upon the subject of my interview with Dr. Jackson. It is not necessary to go into the question of the origin of all ideas. I am ready to acknowledge my indebtedness to men and to books for all my information upon this subject. I have got here a little and there a little. I learned from Dr. Jackson, in 1844, the effect of ether directly applied to a sensitive tooth, and proved, by experiment, that it would gradually render the nerve insensible. I learned from Dr. Jackson, also, in 1844, the effect of ether when inhaled by the students at college, which was corroborated by Spear's account, and by what I read. I knew of Dr. Wells's attempt to apply nitrous oxide gas for destroying pain under surgical operations. I had great motives to destroy or alleviate pain under my operations, and endeavored to produce such a result by means of inhaling ether, inferring that if it would render a nerve insensible, directly applied, it might, when inhaled, destroy or greatly alleviate sensibility to pain generally. Had the ether that I tried on the 5th August been pure, I should have made the demonstration then. I further acknowledge that I was subsequently indebted to Dr. Jackson for valuable information as to the kinds and preparations of ether, and for the recommendation of the highly rectified from Burnett's as the most safe and efficient. But my obligation to him hath this extent, no further. All that he communicated to me I could have got from other well-informed chemists, or from some books. He did not put me upon the experiments; and when he recommended the highly rectified sulphuric ether, *the effect he anticipated was only that stuporfaction which was not unknown, and he did not intimate in any degree a suspicion of that insensibility to pain which was demonstrated, and astonished the scientific world.*

See Whitman, page 221.

See Chandler, 2d Int. page 258.

Cable Eddy 5th Inter. p. 286.

A.A. Gould page 265.

E. Warren, page 442.

"As soon as the man whose tooth I extracted left my office, I consulted Dr. Hayden as to the best mode of bringing out the discovery. We agreed it was best to announce it to the surgeons at the hospital; but as some time would elapse before an operation, I thought it best to procure some assurance which would induce my patients to take it. I therefore called upon the man who had taken it, and found him perfectly well. Thence I went

See J. C. Warren,
page 301.
2d Inter.
J. Mason
Warren,
page 386,
6th Inter.
Dr. Hayden,
page 193.

to Dr. Jackson, told him what I had done, and asked him to give me a certificate that it was harmless in its effects. This he positively refused to do. I then told him I should go to the principal surgeons and have the question thoroughly tried. *I then called on Dr. Warren, who promised me an early opportunity to try the experiment, and soon after I received the invitation inserted in the appendix.*

"In the mean time, I made several additional experiments in my office, with various success. I administered it to a boy, but it produced no other effect than sickness, with vomiting, and the boy was taken home in a coach, and pronounced by a physician to be poisoned. His friends were excited, and threatened proceedings against me. A notice of my successful experiments having, without my knowledge, got into the papers, several persons called, wishing to have it administered. I gave it to a lady, but it produced no other effect than drowsiness, and when breathed through the apparatus named by Dr. Jackson, it produced suffocation. I was obliged to abandon this mode, and obtaining from Mr. Wightman a conical glass tube, I inserted a saturated sponge in the larger end, and she breathed through that. In this way she seemed to be in an unnatural state, but continued talking, and refused to have the tooth extracted. I made her some trifling offer, to which she assented, and I drew the tooth, without any indication of pain on her part, not a muscle moving. Her pulse was at 90, her face much flushed, and after coming to, she remained a long time excessively drowsy. From this experiment, I became satisfied of what is now well proved, that consciousness will sometimes remain after insensibility to pain is removed.

See Gould,
page 265.

"I afterwards gave it to a Miss L., a lady of about twenty-five. The effect upon her was rather alarming. She sprung up from the chair, leaped into the air, screamed, and was held down with difficulty. When she came to, she was unconscious of what had passed, but was willing to have it administered again, which I did with perfect success, extracting two molar teeth. After this, I tried several other experiments, some with more and some with less success, giving my principal attention to the perfecting of my modes of administering it.

"When the time drew near for the experiment at the hospital, I became exceedingly anxious, and gave all my time, day and night, hardly sleeping or eating, to the contriving of apparatus, and general investigation on the subject.

"I called on Dr. Gould, a physician who had paid much attention to chemistry, and told him my anxieties and difficulties. He sympathized with me, gave me his attention, and we sat up nearly all night, making sketches of apparatus; he first suggested to me an antidote in case of unfavorable effects, and the valvular system, instead of the one I then used. The operation was to be at 10 o'clock. I rose at daybreak, went to Mr. Chamberlain, an in-

strument maker, and, by great urging, got the apparatus done just after ten o'clock, hurried to the hospital, and reached the room just as Dr. Warren was about to begin the operation; he having given up all hope of my coming. The detailed account of this operation will be found in Dr. Warren's communication. There was a full attendance; the interest excited was intense, with the most eager scrutiny of the patient. When the operation closed, the patient described his state, and Dr. Warren announced his belief that there had been insensibility to pain, my feelings may be better imagined than described.

"I was invited to administer it the next day, in an operation for a tumor, performed by Dr. Hayward, and with perfect success.

"On the 23d October, I saw Dr. Jackson for the first time, since the interview last described. I take my account of this interview from a memorandum made at the time, the accuracy of which is attested by two witnesses of the highest respectability who were present. He said he thought he would just look in, that he heard I was doing well with the ether, and learned from Mr. Eddy that I intended to take out a patent, and would make a good deal by it. I replied that it had been a cause of anxiety and expense to me, but that I thought I should now do well with it. He said he thought so too, and that he believed he must make a professional charge for advice. I asked him why in this case, more than in any other case of his advice, arising out of previous relations, as mentioned at the opening of this memoir. He said that his advice had been useful to me, that I should make a good deal out of the patent, and that I ought to make him a compensation. I told him I would do so if I made much by the patent, independent of what I gained in my business. He said he should charge me \$500. I told him I would pay him that, if ten per cent. on the net profits of the patent amounted to so much. He said he was perfectly satisfied with this arrangement, and so the interview ended. The next morning he told Mr. R. H. Eddy what had passed, and two or three days afterwards Mr. Eddy suggested to me that instead of paying Dr. Jackson a fee, I should interest him in the patent, and give him ten per cent. of the net profits. Mr. Eddy made this suggestion out of friendship to Dr. Jackson, whom he wished to benefit. He added that the patent would thus have the benefit of Dr. Jackson's name and skill; that he would thus have a motive to give his attention to the preparation and the apparatus, and we should be able to keep in advance of the improvements that might be suggested by others. He also said that if a suit was brought, and Dr. Jackson should be a witness, as he doubtless would be, the aid he had given me might be made a handle of by persons impeaching the patent to invalidate my claim as the discoverer. At this time the dentist had organized a formidable opposition to the use of ether, and all the medical magazines in the Union, except Boston, were arrayed against

See R. H. Eddy, page 397.

See Chandler, p. 258

See R. H. Eddy, page 397.

it. I felt the need of all the aid I could get, and was conscious of a want of through scientific education myself. I was induced by these motives to accede to Mr. Eddy's request, but did not then understand that Dr. Jackson claimed to be the discoverer at all. But on this head I refer to the affidavits of the Messrs. Eddy.

"I continued administering the ether in my office, and early in November I applied to Dr. Hayward for leave to administer it in a case of amputation, which I learned was to take place at the hospital. Dr. H. J. Bigelow, in the mean time, had attended my experiments at my office, and taking a deep interest in the subject, prepared a memoir, which he read to the Boston Society for Medical Improvement, and subsequently to the American Academy of Arts and Sciences.

See Drs. J. C. Warren, p. 301. H. J. Bigelow, p. 319. S. D. Townsend, p. 355. Geo. Hayward, page 185.

"The surgeons of the hospitals informed me that they thought it their duty to decline the use of the preparation until informed what it was. I immediately wrote to Dr. Warren, the senior surgeon, disclosing the whole matter. The operation took place on the 7th November. About half an hour beforehand, Dr. H. J. Bigelow called for me, and said he wished me to be on the spot, in case it should be determined to admit me. After remaining in the ante-room for some time, it was resolved by the surgeons to permit the experiment, and I administered the ether with perfect success. This was the first amputation. *I will also remark, that Dr. Jackson was absent from the city at this time, and knew nothing of the operation.*

On the 21st November, I administered the ether in an operation for a tumor, at the Bromfield House, in the presence of a number of medical gentlemen, among whom I noticed Dr. Jackson. *This was the first time he had seen it administered, and no one but myself had administered it in Boston or elsewhere, to my knowledge. In this instance Dr. Jackson appeared merely as a spectator. On the 2d January, 1847, he did the first act indicating to the surgeons that he had any interest in the subject. On that day he called at the hospital with some oxygen gas as an antidote for asphyxia, which he heard was produced by the ether. But before this time the surgeons had satisfied themselves that asphyxia was not produced. With the single exception of an intimation to Dr. Warren, which was after its establishment at the hospital, and which appears in his communication, none of the surgeons or other persons engaged in these experiments had received any idea from Dr. Jackson himself, or from his conduct, that he was in any way connected with this discovery, responsible for the use of the preparation, entitled to the credit of its success, or liable to the odium of its failure.*

"If death or serious injury had occurred to any one, Dr. Jackson could not have been in the least degree implicated. It was not until danger was over, and success certain, until the discovery had arrested the attention of the world, until the formidable

opposition of the dentists and of all the medical magazines and societies in other places had become powerless, that Dr. Jackson began to involve himself in it, and that his claim to have anticipated the effects, and communicated them to me, was brought forward.

"On the 19th October, as soon as I felt confident of success, I addressed a note to my former partner, Dr. Wells, informing him of what I had done, and asking him to come to Boston and assist me in bringing the discovery into use in dentistry. He replied by the letter in the appendix, of October 20, 1846. He came to Boston; saw several experiments in my office; expressed himself alarmed; said I should kill some one yet, and break myself up in my business. He left abruptly, but without intimating a claim to the discovery, although he could recognise the ether, and was freely told that it was ether. *I have also the authority of Dr. Warren and Dr. Hayward for saying that no allusion was made by Dr. Wells to ether, to their knowledge, when he made his experiment in Boston, in 1844-'5.*

See p. 91

See R. H. Eddy, page 397.

"I am aware that a communication to an institution whose objects are scientific, and not personal, gives me no right to argue the question of my own claim to a discovery, in opposition to the claims of others. I have endeavored to state no facts but such as fairly illustrate the history of this demonstration. If these have any bearing upon the claims of others, I am entitled to the benefit of the effect. But this memoir is not intended to present the whole of my comparative rights, as against the claims of Dr. Jackson or Dr. Wells. If a tribunal were opened for such a discussion, I would most cheerfully prepare for the hearing, and submit myself to the judgment of any enlightened umpire. I have proposed such a course to Dr. Jackson, who has declined it.

"In justice to myself, I should say, that I took out my patent early, before I realized how extensively useful the discovery would be, and beside the motive of profit and remuneration to myself, I was advised that it would be well to restrain so powerful an agent, which might be employed for the most nefarious purposes. I gave free rights to all charitable institutions, and offered to sell the right to surgeons and physicians for a very small price, such as no one could object to paying, and reasonably to dentists. I had little doubt that the proper authorities would take it out of private hands, if the public good required it, making the discoverer, who had risked reputation, and sacrificed time and money, such a compensation as justice required. But as the use has now become general and almost necessary, I have long since abandoned the sale of rights, and the public use the ether freely; and I be-

See Dr. J. C. Warren, p. 301.

lieve I am the only person in the world to whom this discovery has, so far, been a pecuniary loss.

"Most respectfully, your obedient servant,

"W. T. G. MORTON.

"BOSTON, (U. S. A.,) *July 31, 1847.*"

This statement brings the discovery down to a time when it became fully established, and when complete publicity was given it by several successful operations under its influence in the Massachusetts Hospital. It is fully supported by Dr. George Hayward, one of the surgeons in the Massachusetts General Hospital, and much in detail, by the testimony of disinterested witnesses. The following is a note from Dr. H. in reference thereto :

"BOSTON, *February 5th, 1852,*

"DEAR SIR: The article by R. H. Dana, jr., esq., on the ether discovery, (Dr. Morton's Memoir,) which appeared in *Littell's Living Age* for March, 1848, was read to me before it was printed; and to my best knowledge and belief, all its statements are correct.

"I remain, very truly yours, &c.,

"GEO. HAYWARD.

"HON. GEO. T. DAVIS."

See p. 8.

It is proved that, prior to 1844, Dr. Morton was associated in practice with Dr. Horace Wells as a surgeon dentist. That afterwards he became a student of medicine with Dr. Charles T. Jackson, and a boarder in his family. That in pursuance of the suggestion of Sir Humphrey Davy, mentioned above, Dr. Wells was experimenting on nitrous oxide, and professed to have been successful in several instances in extracting teeth without pain from patients under its influence. That in the winter of 1844-'5 Dr. Wells came to Boston and desired to make public exhibition of his alleged discovery, when Dr. Morton, as his friend, obtained permission for him to exhibit before a public assembly, and himself assisted on the occasion. The experiment of Dr. Wells proved a failure; he was greatly mortified, and presently abandoned the pursuit.

It is very reasonable to suppose that this attempt of Dr Wells, although it resulted unfortunately, did, in connexion with his profession and his previous studies, turn the mind of Dr. Morton still more strongly in that direction. He certainly had just reason to hope that, although nitrous oxide would not produce the desired result, he could find some other gas or vapor which would. He was young and ardent—a surgeon dentist with already a large business, and he was condemned to witness daily the excruciating pain occasioned by his more difficult operations, especially when nervous and sensitive females were the subjects

It is natural to suppose that a humane desire to remove so much suffering, and especially a prospect of the enviable reputation and high fortune which should attend such a discovery, caused it to take full possession of his mind.

He was in a situation highly favorable to the progress of his inquiries. His facilities for study and the progress which he made generally in his profession, can hardly be better presented than in the following certificates and diploma :

HARVARD UNIVERSITY.—*Medical Matriculation.* Mr. Wm. Thos. Green Morton has Matriculated.

WALTER CHANNING, *Dean.*

BOSTON, Nov. 6, 1844.

HARVARD UNIVERSITY.—*Lectures on Anatomy and Surgery.* Admit W. T. G. Morton.

JOHN C. WARREN.

November, 1844.

HARVARD UNIVERSITY.—*Principles of Surgery and Clinical Surgery,* by GEO. HAYWARD, M. D. Admit W. T. G. Morton.
November, 1844.

HARVARD UNIVERSITY.—*Lectures on Materia Medica,* by JACOB BIGELOW, M. D. Admit W. T. G. Morton.
BOSTON, November, 1844.

HARVARD UNIVERSITY.—*Theory and Practice of Physic,* by JOHN WARE, M. D. Admit W. T. G. Morton.
November, 1844.

HARVARD UNIVERSITY.—*Theory and Practice of Midwifery and Medical Jurisprudence,* by WALTER CHANNING, M. D. Admit W. T. G. Morton.

BOSTON, November, 1844.

HARVARD UNIVERSITY.—*Lectures on Chemistry.* Admit Mr. W. T. G. Morton.

J. W. WEBSTER, *Professor.*

November, 1844.

Admit Mr. Wm. Thos. Green Morton to the MASSACHUSETTS GENERAL HOSPITAL.

BOSTON, November 6, 1844.

This ticket admits Mr. W. T. G. Morton to the school of PRACTICAL ANATOMY, in Harvard University.

1844-'5.

SAMUEL PARKMAN.

HARVARD UNIVERSITY.—*Lectures on Anatomy and Surgery.*
Admit W. T. G. Morton.

JOHN C. WARREN.

November, 1845.

HARVARD UNIVERSITY.—*Principles of Surgery and Clinical Surgery*, by GEORGE HAYWARD, M. D. Admit W. T. G. Morton.

November, 1845.

HARVARD UNIVERSITY.—*Lectures on Materia Medica*, by JACOB BIGELOW, M. D. W. T. G. Morton.

BOSTON, November, 1845.

HARVARD UNIVERSITY.—*Theory and Practice of Physic*, by JOHN WARE, M. D. Admit W. T. G. Morton.

November, 1845.

HARVARD UNIVERSITY.—*Theory and Practice of Midwifery, and Medical Jurisprudence*, by WALTER CHANNING, M. D. Admit W. T. G. Morton.

BOSTON, November, 1845.

HARVARD UNIVERSITY.—*Lectures on Chemistry.* Admit Mr. W. T. G. Morton.

J. W. WEBSTER, Professor.

November, 1845.

Admit Mr. Wm. Thos. Green Morton to the Massachusetts General Hospital, four months.

BOSTON, November 5.

Professores et Curatores Senatûs Medici Universitatis Washingtonianæ Baltimorensis omnibus hæc litteras visuris, salutem.

Nos summâ Reipublicæ Marilandiae auctoritate instructi, certiores facimus omnes ad quos hæc litteyæ nostræ pervenerint, virum ornatissimum W. T. G. Morton artis Medicæ et Chirurgicæ studiis excultum, in sessione nostrâ solemni, apud Nos esse comprobatum. Quocircâ eidem W. T. G. Morton Doctoris Medici Gradum, majore suffragiorum numero concessimus, eumque singulis inter nos et alibi genitum privilegiis et juribus ad gradum istum pertinentibus, frui jussimus.

Cujus rei quo major sit fides, Præsentes Hæc Collegii Sigillo et chirographis nostris munitas, dare placuit.

Datum Baltimori Die Mensis Cal Martis annoque Salutis Reparatae 18.

JOHANNES C. S. MONKUR, M. D., *Prax. et Theoret. Med. Professor.*

GULIELMUS H. STOKES, M. D., *Inst. Med. Med. Jurisp. et Insen. Professor.*

GEORGIUM MCCOOK, A. M. M. D., *Professor Chirurgiae.*

GEO. C. M. ROBERTS, M. D. D. D., *Obstet. et Mul. et Inf. Morb. Professor.*

THO. E. BOND, A. M. M. D., *Therap. Mat. Med. et Hyg. Professor.*

REGE N. WRIGHT, A. M., M. D., *Chem. Professor.*

GEORGIUM MCCOOK, A. M., M. D., *Professor Anatomiae.*

J. V. MCJILTON,

Z. COLLINS LEE,

BENJAMIN KURTZ, D. D.,

JOHANNES G. MORRIS, D. D.,

HUGH JENKINS,

J. T. MACKENZIE, M. D.,

} *Curatores.*

[SEAL.]

To the Secretary of the Executive Committee of the American Society of Dental Surgeons:

Mr. W. T. G. Morton, dentist, entered his name with me as a student of medicine March 20, 1844, and attended to practical anatomy, in the Massachusetts Medical College, during the winter of that year, where he dissected with diligence and zeal, and paid special attention to the anatomy of the head and throat—parts of human anatomy particularly important to the surgeon dentist. He also studied Bell's and other standard works on anatomy, and attended the lectures of Drs. Warren, Hayward, and other professors. I would recommend him as a suitable person for admission as a dental surgeon. He is a skilful operator in dentistry, both in surgical and mechanical departments, and has studied the chemical properties of the ingredients required for the manufacture of artificial teeth.

CHARLES T. JACKSON, M. D.

Prior to this time, Dr. Jackson had, as he states, recommended chloric ether as an external application to allay pain in the teeth and gums; and had furnished several dentists in Boston, his friends, with the article in its purity; he does not name Dr. Morton among the number; but from the relations which subsisted between them, from the fact that Dr. Morton was at that time the family dentist of Dr. Jackson, as well as his student in medicine, your committee think the statement of Dr. Morton, in this particular, supported by that of Dr. Jackson. Add to this the fact, well known at the time to college students, and especially

P. 257. to students of chemistry and medicine, that the vapor of sulphuric ether inhaled for a short time allayed pain, and we have the circumstances which would naturally direct the mind of the inquirer to that substance as one whose inhalation would be probably safe, and which would render the patient insensible during a short but painful operation. As additional proof of the direction of Dr. Morton's studies, and that he had the means in his power of knowing all that was known of this agent then familiarly used as a nepenthe, your committee are referred to a bill of books purchased by Dr. Morton of B. B. Mussey, of Boston, on the 3d of May, 1845. Among them is Pereria's *Materia Medica*, which contains the following sentence: "The vapor of ether is inhaled in spasmodic asthma, chronic catarrh, dyspepsia, and whooping cough, and to *relieve the effects caused by the accidental inhalation of chloric gas.*" Its intoxicating or stupifying effects were, as we have already said, well known to students and scientific men.

P. 196 On the 30th of June, 1846, three months before the discovery was made public, it appears, by the statement of Richard H. Dana, jr., Attorney at Law, and by a charge in his books, that an article of agreement was entered into by Dr. Morton and G. G. Hayden, by which the latter agreed to take charge of the business of Dr. Morton for a time; Dr. Morton giving to Mr. Dana as a reason of his entering into this arrangement, that he wished to give his attention to another matter of great importance, which, if successful, would revolutionize the practice of dentistry.

This conversation was shortly after detailed by Richard H. Dana, jr., to Dr. Francis Dana, jr., whose corroborative evidence puts the substance of the conversation beyond question, and the date is fixed by that of the instrument and the entry above referred to.

Grenville G. Hayden testifies —

"That, about the last of June, 1846, Dr. William T. G. Morton called upon me at my office, No. 23, Tremont Row, and stated to me that he wished to make some arrangements with me that would relieve him from all care as to the superintendence of those employed by him in making teeth, and all other matters in his office. He stated, as a reason for urging me to superintend his affairs in his office, that he had an idea in his head, connected with dentistry, which he thought 'would be one of the greatest things ever known,' and that he wished to perfect it, and give his whole time and attention to its development. Being extremely urgent in the matter, I made an engagement with him the same day, according to his request. I then asked him what his 'secret' was. 'Oh,' said he, 'you will know in a short time.' I still insisted upon knowing it, and he finally told me the same night —

to wit: the night of the last day of June, 1846, aforesaid—that ‘it was something he had discovered which would enable him to extract teeth without pain.’ I then asked him if it was not what Dr. Wells, his former partner, had used; and he replied, ‘No! nothing like it;’ and, furthermore, ‘that it was something that neither he nor any one else had ever used.’ He then told me he had already tried it upon a dog, and described its effects upon him, which (from his description) exactly correspond with the effects of ether upon persons who have subjected themselves to its influence, under my observation. All this happened in June, 1846. He then requested me not to mention what he had communicated to me.”

Francis Whitman testifies as follows—

“I have often heard Dr. Morton speak about discovering some means of extracting teeth without pain. This discovery appeared to be the subject of his thoughts and investigations during the greater part of last year, *i. e.*, 1846. One day—I think it was previous to July, 1846—Dr. M., in speaking of the improvements he had made in his profession, and of some one improvement in particular, said, if he could only extract teeth without pain, he ‘would make a stir.’ I replied, that I hardly thought it could be done. He said he believed it could, and that he would find out something yet to accomplish his purpose. In conversation with Dr. M., some time in July, he spoke of having his patients coming in at one door, having all their teeth extracted without pain and without knowing it, and then going into the next room, and having a full set put in.

“I recollect Dr. Morton came into the office one day in great glee, and exclaimed, that he had ‘found it,’ and that he could extract teeth without pain! I don’t recollect what followed; but, soon after, he wanted one of us in the office to try it, and he then sent William and Thomas out to hire a man to come and have an experiment tried upon him. After all these circumstances happened, Dr. Hayden advised Dr. Morton to consult with some chemist in relation to this discovery. I went, at Dr. Morton’s request, to see if Dr. Jackson had returned, (he having been absent from the city,) but found that he was still absent.”

From this testimony, corroborative of the statement of Dr. Morton, it does, in the opinion of your committee, sufficiently appear that he was, prior and subsequent to the 30th of June, 1846, intent upon the discovery of some anæsthetic agent which would enable him to extract teeth without pain; and that he had faith and confidence that he was on the point of making the discovery. He says, in his narrative, that the anæsthetic agent which he then had in view was sulphuric ether, and the proof adduced is, in the opinion of your committee, equally conclusive in support of that fact.

Theodore Metcalf sailed for Europe in the ship "Joshua Bates" on the 6th day of July, 1846, on a tour, from which he returned in the fall of 1847. We give below a note addressed by him to Dr. Morton; and an extract from a letter to the trustees of the General Hospital, each a letter to N. J. Bowditch, Esq., bearing directly on this point.

In his note to Dr. Morton, dated December 20, 1847, he says:

"I can only state that I remember to have met you at Mr. Burnett's store early in the summer of 1846, and to have had a conversation with you in regard to the medicinal qualities of *sulphuric ether*, a quantity of which you were then purchasing. I cannot, as you desire, give the precise date, but know it to have been previous to July 6, as I left Boston on that day for a tour, from which I have but a few weeks returned."

"BOSTON, January 26, 1848.

"SIR: In answer to your inquiry respecting the nature of my interview with Dr. Morton, I can only add to my note of December 20, that the conversation was commenced by some inquiry on his part, concerning the nature and effects of sulphuric ether, a vial of which he then held in his hand.

"In answer to his several questions, I gave him such information as he could have obtained from any intelligent apothecary at that time, and also related to him some personal experience as to its use as a substitute for the nitrous oxide; adding the then generally received opinion, that its excessive inhalation would produce dangerous, if not fatal consequences. Some reference was made—but whether by Mr. Morton or myself, I cannot remember—to the successful experiments of his former partner, Mr. Wells, with the nitrous oxide. It was one of those casual conversations which quickly pass from the mind; and it was for the first time recalled to my memory, upon seeing, months after, in a French journal, an account of the anæsthetic effects of ether, the discovery of which was ascribed by the writer to a Boston dentist.

"I am, sir, very respectfully, your obedient servant,

"THEODORE METCALF.

"N. I. BOWDITCH, Esq."

In his letter to the trustees of the Massachusetts General Hospital, dated Boston, January 6th, 1849, Mr. Metcalf says:

"This belief is founded partly upon my memory of the conversation with Morton and partly upon the fact that, *when in Italy, months after, I saw for the first time an account of etherization in a French journal, in which its discovery was ascribed simply to a 'Boston dentist'; I said at once that I was sure Morton must be the man, for he was engaged upon ether before I left home, and that I now knew why he had been so curious, and at the same time shy in his conversation with me.*"

If we consider the then pursuit of Dr. Morton, his earnest desire for information and his anxiety to preserve his secret, his shyness with others and his comparative freedom in conversation with Mr. Metcalf will be fully explained. Mr. Metcalf was a chemist possessed of all the current scientific knowledge of his profession, and he was just setting out on a voyage to Europe, so that Dr. Morton could avail himself of his knowledge and his suggestions with safety to his secret.

See Wightman, p. 232.

See Metcalf, p. 222.

Dr. Hayden says that "about the first of August, 1846, Dr. Morton asked me where he could get some pure ether, and asked me to go to Joseph Burnett's apothecary shop and purchase a four-ounce vial full of ether, which he said he wished to carry home with him, he being about to leave town for Needham, where he then resided. And about the same time he explained to me the nature and effects of ether, and told me that if he could get any patient to inhale a certain quantity of ether gas, it would cause insensibility to the pain of extracting teeth, and he tried to induce me to take it. Dr. Morton said he had breathed it himself, and it would do no harm; and he at the same time tried to induce three young men in the office to take the gas. This was in August, 1846. He was continually talking about his discovery to me. From the time I engaged with Dr. M. as as aforesaid, he frequently stated to me that he had nearly perfected every department in dentistry, save extracting teeth without pain, and that he was determined to accomplish that also. But towards the last of September following, he intimated to me, that, in some particulars, his discovery did not work exactly right, and, in my presence, was consulting his books to ascertain something further about ether."

The inquiry made of Dr. Hayden for a chemist of whom pure sulphuric ether could be obtained, was probably to avoid going too frequently to the same place for the ether, and thus exciting inquiry which might lead to a discovery of his secret; and at last he may have sent Dr. Hayden, instead of going himself, for the same purpose. We find here as early as August 1, 1846, the anæsthetic agent, sulphuric ether, connected by Dr. Morton with the object of his pursuit.

Shortly after this, and prior to the 28th of September, 1846, Dr. Morton called upon Mr. Wightman, a well known maker of philosophical instruments and apparatus in Boston, told him that he had abandoned his views of increasing the security of artificial teeth by atmospheric pressure, which he found to be erroneous, and was engaged upon something of a much greater importance to his profession. He then wished him to show him some gas bags of India-rubber cloth made for retaining gas, and inquired whether it would do to put sulphuric ether in them. Not being able to give Dr. Morton satisfactory information on the subject, he advised him to call on Dr. Jackson, which he said he would

See Wightman.

See Leavitt,
p. 196.

do. About this time some sulphuric ether was procured for Dr. Morton, not in his own name, and brought to his office by William P. Leavitt, one of the young men in his employment. Another of the young men, Thomas R. Spear, was first prevailed upon to inhale the vapor, but the effect on him was far from being satisfactory. Leavitt then took it, also with no satisfactory result, and Dr. Morton was for a time greatly disheartened. (See depositions of Leavitt and Spear, pp. 196, 219.) He complained to Dr. Hayden that, in some particulars, his discovery did not work exactly right, and, "in my presence," says the witness, "was consulting his books to ascertain something further about ether." We find this statement fully sustained by the testimony of Francis Whitman. He says:

"I told Dr. Morton I knew what it was that William had brought, and said it was chloric ether. Dr. M. then said he wished to know if ether would dissolve India-rubber, and sent Wm. P. Leavitt to inquire of Dr. Gay if it would. About this time Dr. M. asked me to get the books on chemistry, and find what they said about ether. I did so, and read it over to him, and I think he went to Burnett's to see if he could find something there."

Your committee are satisfied from the statement of Dr. Morton, and from the evidence by which it is thus far fully corroborated, that prior to and on the 30th of September, 1846, he was occupied with the conviction that an anæsthetic agent might be discovered which would remove all insensibility to pain in patients submitted to the operations of the dentist; that sulphuric ether was the agent; and that perfect success required only full assurance of its safety, either of a good quality, and the proper mode of administering it; that he sought assurance of these by consulting books to which he had access, and learned men from whom he could obtain the current knowledge and experience of the day.

On the 30th of September, 1846, as he declares, he called on Dr. Jackson with a view of obtaining such information as would, if possible, remove the difficulties which he had encountered, and at the same time with a determination to conceal from him the object of his long and earnest pursuit, lest his hint should be taken and he be anticipated in this discovery. There were four persons present at this interview, and each gives an account different from the rest as to what occurred at it. All, however, agree in one particular, namely, that Dr. Morton assumed total ignorance of sulphuric ether, its nature and qualities, and left the impression on the minds of those present that he knew nothing of it. That he did at that time in fact know much of sulphuric ether; that it had for many months preceding, been the subject of his earnest thought and sedulous inquiry; that his mind was so much possessed with it that he feared, in every one with whom

he conversed, a rival who might anticipate him in the discovery and development of its qualities, is proved to the entire satisfaction of your committee. A former committee of this House, to whose able report we shall often have occasion to refer, speaking of the disguise thus practised by Dr. Morton, says :

“ This does not militate against the general effect of the statement of Dr. Morton. He went, as he says, to Dr. Jackson to obtain certain information ; but at the same time anxious to conceal from him the object of his pursuit, being fearful lest Dr. Jackson might anticipate him in bringing the discovery to perfection. We deal with this matter as a question of fact, not of morals, and do not decide whether Dr. Morton might consistently, with the obligations which truth imposes, use artificial means to conceal a mental conception which he did not wish to divulge.

We believe, however, where a person has a right to his secret, and is under no obligations to disclose it, a direct denial of that which was the fact, for the purpose of such concealment, has not been visited with strong moral censure. We would instance the case of Walter Scott at the table of George IV, who, when toasted by his majesty as the author of *Waverly*, declared he was *not* the author.”

Your committee concur in the opinion that, if any moral censure is to be visited upon Dr. Morton for a studied concealment of his possession of what he deemed to be a treasure above all price, and for the safety of which he so much feared, that censure must be slight indeed. His account of the interview will be found in his memoir to the Academy of Arts and Sciences at Paris, above set out.

Dr. Jackson, who first publicly made claim to the discovery after its immense importance was established by several safe and painless operations under its influence in the Medical Hospital, avers that he first disclosed to Dr. Morton the use of the vapor of pure sulphuric ether on the 30th of September ; that he then communicated to him his prior discovery of its anæsthetic qualities, and assured him that it would prevent all pain in a surgical operation, and that it could be used with perfect safety ; in short, that he, Dr. Jackson, then employed Dr. Morton as his agent, operator, or “ nurse,” to administer this pain-destroying vapor ; and that then, in the presence of two witnesses, he distinctly took upon himself all the responsibility of its administration.

One of the witnesses present, George O. Barnes, sustains Dr. Jackson’s statement in two material points, namely, that when he advised the administration of sulphuric ether, he averred that it would render the operation painless, and that it was safe, and he would be responsible for its consequences. See J. D. Whitney, p. 395.

The other witness, James McIntire, though evidently testifying with a strong opinion against Dr. Morton, does not support Dr. Jackson on either of these important points. He says, Dr. Jack-

son advised the use of sulphuric ether; said it was safe, and that it "would make the patients insensible, and" the operator "could do what he had a mind to with them." But he states no assumption of responsibility, and no opinion or assurance of Dr. Jackson, that the vapor of sulphuric ether would render the patient so insensible as not to perceive pain. The evidence of these witnesses will be more particularly considered in another connexion. Suffice it for the present to say, that your committee are satisfied that Dr. Jackson did not, on that day, "*expressly*" assume any such responsibility. They cannot credit it, for it is proved by evidence, and was admitted in the argument by Dr. Jackson's counsel before a former committee of this House, that the morning after the successful operation of September 30, when the same was reported to him, he refused a certificate *in writing* to Dr. Morton that the vapor might be inhaled with safety. Dr. Jackson could not, as an honorable man, have taken the responsibility *orally* of the exhibition of a medical prescription, claimed as his own, and exhibited by an agent or operator under his instruction; and, forthwith, thereafter, have refused to assume the same responsibility *in writing*. And, indeed, it is usual for physicians to give their prescriptions in writing, not orally. Nor do your committee believe that Dr. Jackson on that occasion declared that the inhalation of the vapor of sulphuric ether, within safe and proper limits, would render the operation painless. If he had advanced such an opinion, it could not have failed to be noticed and remembered by his student, Mr. McIntire, for it would have been the first notice to him of a miracle in surgery. But Dr. Jackson's conversation with Mr. Caleb Eddy, on the 23d of October, 1846, and with the Hon. Edward Warren, is, in the opinion of your committee, conclusive upon this subject. On the evening of that day Dr. Jackson visited Mr. Eddy, and gave an account of his conversation between him and Dr. Morton, of September 30, which the witness having detailed, says: "After Dr. Jackson had related the above, I said to him, 'Dr. Jackson, did you know at such time, that after a person had inhaled ether, and was asleep, his flesh could be cut with a knife without his experiencing any pain?' He replied, 'No, nor Morton either; he is a reckless man for using it as he has; the chance is, he will kill somebody yet.'" And the Hon. E. Warren, in his letter, says: "Dr. Jackson told me, in substance, that the so-called discovery was not his, but that Dr. Morton was responsible for it; that the new use of ether was dangerous, and would, he feared, be attended with fatal consequences; that he (Dr. Jackson) was not answerable for the results, and that, therefore, he would refer me to Dr. Morton for further information."

We cannot better express our views as to the interview of 30th September, and the exact value of the evidence which relates to it, than by quoting from the report of the former committee of this House, to which we have already referred. After a close

and careful examination of the statements, and evidence in reference to this interview, they say :

"The evidence, then, amounts to this: Dr. Morton came into Dr. Jackson's office, having in his hand a gas bag, with which he proposed to operate on the imagination of a refractory patient by administering to her atmospheric air. Dr. Jackson ridiculed the idea. Nitrous oxide was spoken of; Dr. Jackson objected to that, saying to Mr. Morton that if he attempted to make it, it would become nitric oxide. He then suggested sulphuric ether, and said it would make the patient insensible, and Morton could do what he pleased with her. This conversation, it will be noted, all took place about a refractory patient; the object considered was the mode of bringing a nervous patient to a condition in which she could be operated upon, not in which she would feel no pain from the operation. Mr. McIntire says not one word about pain or its absence in the operation, but that the operator could do what he pleased with the patient under the influence of sulphuric ether. If this conclusion be correct, the information given by Dr. Jackson to Dr. Morton was no more than the current knowledge of the age—no more than he would have been told by any scientific man, or than he would have read in books which treat of chemistry and medicine; and if it differed in anything from the general opinion of scientific men, it was in a stronger than ordinary assurance that the vapor was not injurious to health. At the same time, it is very clear to your committee that Dr. Morton relied more implicitly on information which he obtained from Dr. Jackson than from any other source, and that the information was given with the unhesitating confidence arising from a consciousness of high scientific attainments.

"This view of the subject awards to Dr. Jackson the merit of greatly aiding by his advice and instructions in the discovery. He did not himself produce the result, which was new; or by his information carry knowledge in that direction, beyond the point it had already reached. He was a safe and reliable guide to its then utmost limit in that direction—the Calpe and Abyla of scientific research—but left the sea beyond to be explored by others."

Doctor Morton having obtained such further information of the properties and preparation of sulphuric ether as Dr. Jackson could give him, and having heard from him an opinion that it might be administered safely, returned to his house, procured a fresh supply of the ether, and, as he says, tried upon himself the experiment of its inhalation, the manner and effects of which are fully stated in his memoir above set forth. We have no reason to doubt the entire truth and accuracy of this statement, though from the nature of the transaction he cannot verify it by direct evidence. Almost immediately after he recovered consciousness,

and while he was elate with the success of his recent experiment, and full of fresh and newly awakened confidence, a stout laboring man, in agony with the tooth-ache, entered and desired to have his tooth extracted, but shrunk from the apprehended pain. He asked to be mesmerized. Dr. Morton told him he had a better application than mesmerism, which he proposed to use. The man without much inquiry, on the assurance that it was safe and would alleviate the pain, consented, and in five minutes after he had taken his seat in the operator's chair the great discovery was verified.

The special circumstances attendant on this first actual experiment, were most fortunate for Dr. Morton—for the cause of surgical science, and for the human race. The patient, owing to his intense suffering, was glad to avail himself of anything, real or imaginary, to relieve the pain which he felt, and to mitigate that which he feared. He therefore inhaled the vapor freely, and delighted with the soothing lenitive, he continued to inhale it eagerly, until anæsthesia being complete, he had forgotten his past sufferings and was beyond the reach of present pain. He was a man of vigorous constitution; he immediately rallied, unconscious of the operation which had been performed, and wholly relieved from the pain which so lately afflicted him. If in his stead, the boy, who sickened with the inhalation, and whose parents, believing him poisoned, threatened a prosecution, had been the first subject, the experiments would probably have gone no further; Dr. Morton would have been overwhelmed with censure and ridicule, and we do not think that either of the contestants would have come in to assert his claim to the disgrace of the failure. Considering the result, it is not a matter of surprise that Dr. Morton was elate with his success. He immediately announced it to those about him, though he concealed from them all, except Hayden, the agent with which the anæsthesia had been effected. He immediately obtained the certificate of Eben Frost, the subject of his experiment, (which will be found on page 257,) consulted with Dr. Hayden about testing his pain-subduing vapor in some operation in the hospital, and next morning called on Dr. Jackson, informed him of the success of the experiment, and asked him for a certificate that the vapor was harmless in its effects. This Dr. Jackson refused to give him.

Dr. Morton gives, in the paper above set forth, the subsequent steps taken by him to perfect and verify his discovery. His general narrative of alternate success and discouragement in the cases arising in his office is fully corroborated by Dr. Hayden. He says:

“The first successful experiment upon any patient was made September 30, 1846, by inhaling ether through a folded cloth, and on that occasion a tooth was extracted without pain. We tried repeated experiments with the same means subsequently, and

they all resulted in total failures. Dr. M. said that Dr. Jackson recommended a certain apparatus, which he lent Dr. Morton from his laboratory, consisting of a glass tube of equal size throughout, having a neck, and being about three feet long. This was likewise a total failure. So far, all our experiments, with one exception, proving abortive, we found that a different apparatus must be obtained, and it was at this time that Dr. M. procured from Mr. Wightman, of Cornhill, a conical glass tube, with which, by inserting a sponge saturated with ether in the larger end, we had better success, and our experiments began to assume a more promising aspect.

"Still, our success was not uniform, and far from perfect. At this time, Dr. M., suggested that our failures might be owing to the fact that, in all our experiments so far, the patient had breathed the expired vapor back into the vessel, thus inhaling the same over and over. He then stated that the expired air should pass off into the surrounding atmosphere, and wished me to make a pattern for an apparatus by which the air should pass into the vessel, combine with ether, be inhaled into the lungs, and the expired air thrown off into the room. This idea, as thus forced upon him, and communicated to me, was fully elaborated, and corresponds most accurately with the apparatus now in use in this country and in Europe, and for which Dr. M. has applied for letters patent. I replied, that he had explained his idea so clearly that he would have no difficulty in directing a philosophical-instrument maker to manufacture a proper inhaler at once, without a pattern, and recommended him to Mr. Chamberlain, in School street, to whom he applied accordingly, and who made, as thus desired, the first inhaler. And with such an apparatus, we have had uniform success to this day, the results of which are known to the world.

"And I will here state that, on the evening of the 30th of September, after the first experiment had been made with success, Dr. Morton spoke about going to the hospital and using the ether there, and thus bring out the new discovery. After several other successful experiments, the question came up anew how to introduce it to the world, when Dr. M. stated that Dr. Jackson had declined to countenance it, or aid in bringing it out, and then he (Dr. M.) said he would see Dr. Warren, and have his discovery introduced into the Massachusetts General Hospital. He went out and soon returned, stating that Dr. W. had agreed to afford him an opportunity to apply the vapor, as soon as practicable, in the hospital."

So much for what occurred in the office of Dr. Morton, his difficulties, and the skill and energy with which he overcame them. But his discovery was now to come before the world, and from the time of its advent, witnesses multiply on us in numbers too great for all to receive even a passing notice. The following is an account given by Dr. Hayward, a short time after, of the first in-

roduction of the vapor of ether into the Massachusetts General Hospital—

“The ether was administered at the hospital by Dr. Morton on the 16th of October, to a man upon whom Dr. Warren was to operate for a tumor on the face. The effect in this case was not complete; the suffering, however, was very much less than it would have been under ordinary circumstances, and the result was on the whole so satisfactory that a second trial was made on the following day.

“The patient to whom the ether was administered on the 17th of October was a female with a fatty tumor on the arm, between the shoulder and the elbow. At the request of Dr. Warren I did the operation. The patient was insensible during the whole time, and was entirely unconscious. The operation lasted about seven minutes, but could not be regarded as a severe one.

“These are the first surgical operations, except those of dentistry, that were performed on patients while under the influence of the ether.

“On the 1st of November I took charge of the surgical department of the hospital; and on the following day, in conversation with Dr. Warren, I stated that I did not intend to allow the medical patients to inhale this preparation of Dr. Morton (for we were then ignorant of the precise nature of it) during my period of service, unless all the surgeons of the hospital were told what it was, and were satisfied of the safety of using it. Dr. Warren agreed with me as to the propriety of this course.

“On the 6th of November, Dr. Morton called at my house and asked me if I was willing to have his preparation inhaled by a patient, whose limb I was to amputate on the following day. I told him of the conversation I had had with Dr. Warren on the subject. Dr. Morton at once said he was ready to let us know what the article was, and to give the surgeons of the hospital the right to use it there when they pleased. He added, that he would send me a letter in the course of the day to this effect. I requested him to direct it to Dr. Warren, as he was the senior surgeon, and told him that I would submit it to my colleagues at a consultation to be held on the following morning. He wrote the letter accordingly; the subject was maturely considered by the surgeons, who were unanimously of opinion that the ether should be inhaled by the individual who was to undergo the operation that day.

“The patient was a girl of twenty years of age, named Alice Mohan, who had suffered two years from a disease of the knee, which terminated in suppuration of the joint and caries of the bones. For some months before the operation, her constitutional symptoms had become threatening, and the removal of the limb seemed to be the only chance for her life. The ether was administered by Dr. Morton. In a little more than three minutes she was brought under the influence of it; the limb was removed, and all

the vessels were tied but the last, which was the sixth, before she gave any indication of consciousness or suffering. She then groaned and cried out faintly. She afterwards said that she was wholly unconscious and insensible up to that time, and she seemed to be much surprised when she was told that her limb was off. She recovered rapidly, suffering less than patients usually do after amputation of the thigh, regained her strength and flesh, and was discharged well on the 22d of December."

Nor are there wanting abundant contemporary papers attesting the discovery, recognising Dr. Morton as its author, and showing its rapid advance to the full confidence of the public.

We give below a copy of the letter written by Dr. Haywood, at the request of Dr. Warren, inviting Dr. Morton to attend at the first of the above named surgical operations, and administer to the patient :

"DEAR SIR : I write at the request of Dr. J. C. Warren, to invite you to be present on Friday morning at 10 o'clock at the hospital, to administer to a patient, who is then to be operated upon, the preparation which you have invented to diminish the sensibility to pain.

"Yours, respectfully,

"C. F. HAYWOOD,

"House Surgeon to the General Hospital, October 14th, 1846.
"Dr. MORTON, Tremont Row."

Dr. Haywood states above, that Dr. Morton, on the 6th of November, 1846, addressed a letter to Dr. Warren, informing him that the anæsthetic agent which he used was the vapor of sulphuric ether, and offering the free use of it to the hospital. We give below the correspondence :

"DEAR SIR : As it may sometimes be desirable that surgical operations should be performed at the Massachusetts General Hospital under the influence of the preparation employed by me for producing temporary insensibility to pain, you will allow me, through you, to offer to the hospital the free use of it for all the hospital operations. I should be pleased to give to the surgeons of the hospital any information, in addition to what they now possess, which they may think desirable in order to employ it with confidence. I will also instruct such persons as they may select, connected with the hospital, in the mode of employing it. This information, I must request, should be regarded as confidential, as I wish for ample time to make such modifications as experience may suggest in its exhibition. It is also my intention to have persons suitably instructed, who will go wherever desired, for a reasonable compensation, and administer it for private operations ; thus enabling any surgeon to employ it in his private practice whenever he may have occasion. I think you will agree

with me that this will be wiser, until its merits are fully established, than to put it into the hands of everybody, thereby bringing discredit upon the preparation by its injudicious employment. Should you wish me to administer at any of the operations to-morrow, I shall do so with pleasure; and should the above proposition be deemed worthy of being entertained, I shall be ready to make the arrangement as soon as informed of your wishes.

“W. T. G. MORTON.

“Dr. J. C. WARREN.

“DEAR SIR: I beg leave to acknowledge the reception of your polite letter. I shall lose no time in laying it before the surgeons of the hospital.

“I remain, respectfully, yours,

“J. C. WARREN.

“PARK STREET, *November 6th.*”

We think proper, also, to insert two other notes, written December 11th, 1846; one by Dr. Haywood, at the request of Dr. Warren; the other by Dr. Warren himself; both relative to an operation to be performed on the 12th; also, a certificate of Dr. Warren, of January 16th, 1847:

“SIR: I am requested by Dr. Warren to ask you, if convenient to yourself, to administer your preparation to a patient from whom a part of the upper jaw is to be removed. The operation will be done by Dr. Warren to-morrow at 11 a. m.

“Yours, &c.,

C. F. HAYWOOD,

“*M. G. Hospital, December 11, 1846.*

“Dr. MORTON, *Tremont Row.*”

Dr. MORTON—*Dear Sir:* I enclose a note which I have just received from Dr. Brown. I think there would be a propriety in granting his request. There will be an operation at the hospital to-morrow at 11 o'clock, at which I shall be glad to have your aid, if perfectly convenient.

“Truly yours,

J. C. WARREN.

“2 PARK STREET, *December 11.*”

“BOSTON, *January 6, 1847.*

“I hereby declare and certify, to the best of my knowledge and recollection, that I never heard of the use of sulphuric ether by inhalation, as a means of preventing the pain of surgical operations, until it was suggested by Dr. Morton in the latter part of October, 1846.

“JOHN C. WARREN,

“*Professor of Anatomy and Surgery of the
Massachusetts General Hospital.*”

The papers given above show how, in the ordinary course of things, a discovery like this inscribes itself at once on something more exact and more durable than mere human memory.

Your committee will add to the above a letter from Dr. Warren to their chairman, and a copy of the first entry in the records of the Massachusetts General Hospital, touching the introduction of sulphuric ether in their surgical operations :

“ BOSTON, *January 21, 1852.*

“ SIR: Having had the honor of receiving from you some questions relating to the ethereal inhalation, I have made good and true answers thereto, which I beg leave to enclose, and with these a short statement of the first instance of ethereal inhalation, which the committee can refer to if their time and inclination permit.

“ I have the honor to be, respectfully,

“ Your obedient servant,

“ JOHN C. WARREN.

“ Hon. W. H. BISSELL.”

“ BOSTON, *January 21, 1852.*

“ 1. Chloric ether and sulphuric ether are used in our hospital. Chloroform is not, having been known to be fatal in many cases. The first surgical operation with ether was done by me, at the request of Dr. Wm. T. G. Morton, on the 16th of October, 1846. The circumstances of the case are in a separate paper herewith enclosed.

“ 2. Ether is used in our hospital in all operations accompanied with much pain. Its effect is very remarkable in the prevention of pain in all cases, when properly administered. In my address to the American Medical Association at Cincinnati, in May, 1850, I stated that I had myself employed sulphuric and chloric ether, or seen them employed in more than 1,500 cases. From that time to the present, I cannot speak with numerical accuracy, but I suppose the cases have exceeded 1,000; thus making an aggregate of more than 2,500. In no one instance has any serious result happened to the patient within my knowledge.

“ 3. As to the diminution of mortality, it is entirely impossible to give any definite answer; but the diminution of suffering may be supposed to diminish mortality by removing one of its causes.

“ 4. In my private practice I have always used ether for the prevention of pain in severe surgical operations, and usually, if not universally, with great relief to the patient and satisfaction to myself.

“ 5. The medical faculty within my knowledge generally consider the application of ether to the prevention of pain as the most valuable addition to the means of relieving human suffering since the introduction of vaccination.

“ JOHN C. WARREN.”

First case of ethereal inhalation. Copied from the surgical records of the Massachusetts General Hospital.

"This case is remarkable in the annals of surgery. It was the first surgical operation performed under the influence of ether. Dr. Warren had been applied to by Dr. Morton, a dentist, with the request that he would try the inhalation of a fluid, which he said he had found to be effectual in preventing pain during operations on the teeth. Dr. Warren having satisfied himself that the breathing of the fluid would be harmless, agreed to employ it when an opportunity presented. None occurring in private practice within a day or two, he determined to use it on this patient.

"Before the operation began, some time was lost in waiting for Dr. Morton, and ultimately it was thought he would not appear. At length he arrived, and explained his detention by informing Dr. Warren that he had been occupied in preparing his apparatus, which consisted of a tube connected with a glass globe. This apparatus he then proceeded to apply, and after four or five minutes the patient appeared to be asleep, and the operation was performed as above described. To the surprise of Dr. Warren and the other gentlemen present, the patient did not shrink nor cry out; but during the insulation of the veins he began to move his limbs and utter extraordinary expressions. These movements seemed to indicate the existence of pain, but after he had recovered his faculties he said he had experienced none, but only a sensation like that of scraping the part with a blunt instrument, and he ever after continued to say he had not felt any pain. The result of this operation led to the repetition of the use of ether in other cases, and in a few days its success was established, and its use resorted to in every considerable operation in the city of Boston and its vicinity."

By these operations, performed in a public hospital before professional men of the highest intelligence, and the perfect success of the ethereal vapor in annihilating all pain, its evident safety, and the readiness of recovery from the anæsthetic state, which resembled the waking from a deep and quiet sleep, a profound impression was made upon the public mind. In that of the surgical faculty it rose to enthusiasm. The success of the discovery was established; Boston, its native city, was proud of its maternity, and it was about to be hailed in Europe, whither a power swifter than the winds was wafting it, with wonder and applause.

During all this time Dr. Morton alone claimed the discovery and conducted the experiments. He had staked every thing dear in life—his hopes of fortune and fame—upon the discovery. He gave his labor by day and his thoughts by night to the perfecting of all that was incomplete in its application; and in the language of the report of the Trustees of the Massachusetts General Hos-

pital, "it is a mortifying fact that Dr. Morton's pecuniary affairs have become embarrassed in consequence of the interruption of his regular business, resulting from his efforts and experiments in establishing this great truth, and that his health has also severely suffered from the same cause, so that he can devote only a small part of each day to his professional labors. He became poor in a cause which has made the world his debtor. The committee have the highest medical authority (that of Dr. Homans) for saying that from living so much of late in an atmosphere of ether, and from the anxiety attending the various trials and experiments connected with the discovery, and from the excitement caused by the controversies which it has occasioned, the health of Dr. Morton has become such that he is unable to attend to his professional duties to any extent." And it was not until all was complete and completely verified—not until some time after the operation of the 2d of January, 1847—did any rival appear and publicly claim the discovery, or even a participation in it.

Subsequent to that time, however, public claims to the whole honor of the discovery have been advanced and are now urged before your committee, by Dr. Charles T. Jackson for himself, and for Dr. Horace Wells, deceased, by his personal representatives. On both of these we have touched in our examination of the discovery as connected with Dr. Morton, and we now propose to give to the claim of each a separate examination.

The first public appearance of Dr. Jackson at the hospital during the performance of an operation under the influence of the newly discovered anæsthetic agent, is shown in the following extract from a letter of Dr. S. D. Townsend, one of the surgeons of the hospital, dated January 29th, 1852:

"Dr. Jackson presented himself for the first time on the 2d of January, 1847, and brought with him a bag of oxygen gas as an antidote to asphyxia. I have had this date always fixed in my mind by the fact that I performed an amputation on that day under the influence of ether, and this is also confirmed by the records of the hospital."

See Dr. S.
D. Town-
send, p.
255.

Dr. Jackson, in a letter addressed by him to Baron Von Humboldt, dated November 22, 1851, a copy of which he filed with your committee, in support of his claim to the discovery, after giving an account of the habitual use of the vapor of sulphuric ether for the purposes and in the manner which we have shown to have been familiar with the medical faculty, since about the year 1795, states the facts, and details the circumstances, which he alleges to have attended its inhalation by himself in the winter of 1841-'42; and gives at length what he says were his deductions from the phenomena consequent on that inhalation. He says:

"The circumstances were as follows: In the winter of 1841-'42, I was employed to give a few lectures before the Mechanics' Charitable Association in Boston, and in my last lecture, which I

See J. D.
Whitney,
page 395.

think was in the month of February, I had occasion to show a number of experiments in illustration of the theory of volcanic eruptions, and for my experiments I prepared a large quantity of chlorine gas, collecting it in gallon glass jars over boiling water. Just as one of these large jars was filled with pure chlorine, it overturned and broke, and in my endeavors to save the vessel, I accidentally got my lungs full of chlorine gas, which nearly suffocated me, so that my life was in imminent danger. I immediately had ether and ammonia brought to me, and alternately inhaled them with great relief. The next morning my throat was severely inflamed and very painful, and I perceived a distinct flavor of chlorine in my breath, and my lungs were still much oppressed. I determined, therefore, to make a thorough trial of the ether vapor, and for that purpose went into my laboratory, which adjoins my house in Somerset street, and made the experiment from which the discovery of anæsthesia was induced. I had a large supply of perfectly pure washed sulphuric ether which was prepared in the laboratory of my friend Mr. John H. Blake, of Boston. I took a bottle of that ether and a folded towel, and seating myself in a rocking chair, and placing my feet in another chair, so as to secure a fixed position, as I reclined backward in the one in which I was seated. Soaking the towel in the ether, I placed it over my nose and mouth, so as to inhale the ether mixed with the air, and began to inhale the vapor deeply into my lungs. At first the ether made me cough, but soon that irritability ceased, and I noticed a sense of coolness followed by warmth, fullness of the head and chest, with giddiness and exhilaration, numbness of the feet and legs followed, a swimming or floating sensation, as if afloat in the air. This was accompanied with entire *loss of feeling*, even of contact with my chair in which I was seated. I noticed that all *pain had ceased in my throat*, and the sensations, which I had were of the most agreeable kind. Much pleased and excited, I continued the inhalation of the ether vapor, and soon fell into a dreamy state, and then became unconscious of all surrounding things. I know not how long I remained in that state, but suppose that it could not be less than a quarter of an hour, judging from the degree of dryness of the cloth, which during the state of unconsciousness had fallen from my mouth and nose and lay upon my breast. As I became conscious, I observed still there was no feeling of pain in my throat, and my limbs were still deeply benumbed, as if *the nerves of sensation were paralyzed*. A strange thrilling now began to be felt along the spine, but it was not in any way disagreeable. Little by little sensation began to manifest itself, first in the throat and body, and gradually extended to the extremities, but it was sometime before full sensation returned, and my throat became really painful.

“Reflecting upon these phenomena, the idea flashed into my mind that *I had made the discovery I had for so long a time been in quest of*—a means of rendering the nerves of sensation tempo-

rarily insensible to pain, so as to admit of the performance of a surgical operation on an individual without his suffering pain therefrom. That *I did draw this inference, and did fully declare my unqualified belief in both the safety and efficiency of the method of destroying all sensation of pain in the human body, during the most severe surgical operations, no one doubts, and it is fully proved by abundant legal evidence, which has never been impeached or doubted in any quarter.*"

"I beg leave to refer you again to the evidence of Dr. William F. Channing, a man of science, Fellow of the American Academy of Arts and Sciences, son of the late Dr. William E. Channing, our most eminent divine. To the testimony of Dr. S. A. Bemis, one of our most eminent dentists. To the letter of John H. Blake, a distinguished chemist; and to the testimony of Mr. Henry D. Fowle, one of the best and most faithful apothecaries of Boston, (and to the letters of Dr. George T. Dexter, of New York, and of D. Jay Browne, of New York, obtained since this paper was written.) Their evidence, with that of my worthy friend and former pupil, Mr. Joseph Peabody, *élève ingénieur à l'école des mines* at Paris prove that I had made this discovery, and long before any other person had even tried a single experiment of the kind. (See also the new and very important evidence of Dr. George T. Dexter, of New York, and that of Mr. D. J. Browne.)

"In the rapid inductions of the mind it is not always easy to trace the exact method of thought by which we suddenly arrive at great truths. But so far as I can trace the reasoning that rapidly flowed through my mind, it was based upon principles well understood by all educated physicians and physiologists. I knew that the nerves of sensation were distinct from that of motion and of organic life, and that one system might be paralyzed without necessarily or immediately affecting the others. I had seen often in my medical practice the nerves of sensation paralyzed without those of motion being effected, and those of motion paralyzed without those of sensation being influenced; and both the nerves of motion and sensation paralyzed without the ganglionic nerves or those of organic life being affected. I knew, also, that the nerves of sensation are stationed as sentinels near the exterior of our bodies, to warn us of danger from external causes of injury, and that there is no feeling in the internal portions of our bodies. I knew, also, that when the knife is applied in surgical operations, that there is little sense of pain in any parts beneath the skin. This my own surgical experience, as well as that of others, had long ago demonstrated, and the philosophy of these physiological facts was made known to the medical world, in England and in this country, by the researches of Sir Charles Bell, of England, and was fully proved by all the eminent anatomists and physiologists of Europe. Now, I had observed, 1st. That the nerves

of sensation in my own body were rendered *insensible to pain* for some time before unconsciousness took place.

"2d. That all pain had ceased in a suffering part of my body during the stages of etherization preceding and following the unconscious state.

"3d. That this state of insensibility of the nerves of sensation continued for a sufficient length of time to admit of most surgical operations, and I had reason to believe that during the unconscious period the degree of insensibility was still greater, so that it would be impossible that any pain could be felt in a surgical operation.

"4th. That the nerves of motion and of the involuntary functions of respiration and circulation were in no wise affected; the functions of life going on as usual, while the nerves of sensation were rendered devoid of feeling, and the body could suffer no pain. By long experience in the trial of ether vapor in spasmodic asthma, and from numerous carefully conducted physiological experiments, I had learned that the vapor of ether could be safely inhaled into the lungs to an extent before believed to be highly dangerous. (Wood and Bache's Dispensatory; Beck's Medical Jurisprudence.) That *I did first discover that the nerves of sensation could be and were paralyzed to all sensation temporarily and safely by the inhalation of ether vapor, is admitted by all scientific men who have examined the evidence.* That *I did first prescribe its administration for the purpose of preventing all sensation of pain in surgical operations, with the guarantee on my medical and scientific responsibility, of its entire safety, if my directions were strictly obeyed, and did thus introduce the use of pure sulphuric ether mixed with air, into surgical practice, is fully proved by abundant testimony, and this is admitted by all persons who have examined the evidence that I have caused to be printed.*

"The only point contested by my opponents is, that in *their opinion* I had not sufficient reason for *drawing the inference that I did, as they admit, draw from my data*, and that I could not have "*known*" the full extent of the insensibility to pain of a surgical operation, and that this remained to be verified by actual trial. Now, it appears to me clear enough that when I had discovered that the nerves of sensation were paralyzed, that I *did know* that the body could feel no pain, and that my induction was the most natural thing in the process of reasoning from my well ascertained data. To the ignorant it is easy to appeal by allegations, like those of my very unscientific opponents, that '*Dr. Jackson could not have known,*' anterior to the verification experiments performed at the hospital, that the patient was wholly insensible to pain when under the influence of ether; but no scientific physiologist or physician can possibly entertain a doubt of the sufficiency of my evidence, that the body could feel no pain when the *nerves of sensation were rendered insensi-*

ble. Again, it is claimed by my opponents, that inducing an ignorant dentist, a man of no medical knowledge, to perform the mere mechanical operations, under my advice and upon my medical responsibility, expressly assumed before witnesses, that I made him a co-partner or joint discoverer, and that *he* made the first application of my discovery. Now, I respectfully dissent from this opinion, and, in my dissent, I am sustained by the highest scientific medical and legal authorities of this country, and by the most eminent men of science of Europe, who have considered this question. I claim that I not only *discovered the principle*, but also by my advice and prescription, as above stated, *made the application* in the highest sense of the term."

Your committee will attempt to determine the weight which ought to be given to this statement: first, by collating it with other facts, in the case of which they can have no doubt; second, by comparing it with other written statements of the same incident, made by Dr. Jackson himself, of an earlier date; third, by considering its inherent probability when viewed in connexion with Dr. Jackson's own well-established acts and omissions; and, lastly, the extent to which it is supported or assailed by extrinsic evidence.

A portion of this statement of Dr. Jackson struck your committee with some surprise; that, namely, in which he says: "*That I did first prescribe its administration for the purpose of preventing all sensation of pain in surgical operations, with the guarantee my medical and scientific responsibility, of its entire safety, if my instructions were strictly obeyed, and did then introduce the use of pure sulphuric ether vapor, mixed with air, into surgical practice, is fully proved by abundant testimony, and this is admitted by all persons who have examined the evidence that I have caused to be printed.*" The only point contested by my opponents is, that, in *their opinion*, I had not sufficient reason for *drawing the inference that I did, as they admit, draw from my data*, and that I could not have '*known*' the full extent of the insensibility to pain of a surgical operation, and that this remained to be verified by actual trial."

This is, within the knowledge of your committee, a wide departure from the actual state of fact touching the controversy. It is known to us, by numerous documents, printed and written, that the positions which Dr. Jackson thus avers to have been universally conceded to him, are the very positions which have been most constantly and strongly contested since he first claimed for himself the merits of the discovery. It appears, too, that neither of these points was conceded to him, but both adjudged against him by the Massachusetts General Hospital in their report of January, 1848, and most distinctly and emphatically so by the report of the committee of this House, of February 24, 1849.

The hospital report notices this subject as follows:

"Down to September 30, 1846, Dr. Jackson had discovered

See the petition of physicians of Boston, page 183, and petition of trustees of the Hospital, p. 190.

nothing that had not been known and in print in London for some years. It was known, that ether would produce insensibility; that such insensibility, though sometimes fatal, was sometimes safe; and that one of the properties of ether was its power to obviate the ill effects of an inhalation of chlorine gas. The discovery of the safety and efficacy of the inhalation of ether in surgical operations had not yet been made; the only experiments which Dr. Jackson had tried, or caused to be tried, being those already prescribed by the text-books. Dr. Jackson had for some time entertained a strong impression that could it be used with safety and effect during the operation of the dentist—a conjecture which a hundred other persons may have made without discovering the fact; and incidentally on more than one occasion, he had advised its use for that class of operations, but had been unable to persuade any one to use it, not even persons of science and intelligence, who were most familiar with all that Dr. Jackson knew or thought upon this subject.

“Dr. Morton had for some time been engaged in searching for a safe agent for promoting insensibility during dental operations. He knew of, and had, upon one occasion, taken part in the nitrous-oxide experiments of Dr. Wells.

“As early as July, 1846, he purchased sulphuric ether, and proceeded to experiment upon it. On September 30, 1846, he has an interview with Dr. Jackson, and receives his decided advice to use pure, rectified sulphuric ether during a dental operation, accompanied with the strongest assurance of its safety, and with the information where it could be obtained. Dr. Morton, unlike others who had received this advice, and notwithstanding he knew the prevailing belief of the dangerous and sometimes fatal character of this agent, forthwith acted upon it. That he proceeded to inhale it himself, rests, indeed, on his own assertion. The committee have no doubt of its truth. He certainly administered it to a patient. *By so doing, he made this discovery.* On learning this result Dr. Jackson very naturally suggested to Dr. Morton that he had better get the ether tried by the surgeons of the hospital, which a witness of Dr. Morton's, however, alleges that he had previously determined to do. But all the subsequent steps were taken by Dr. Morton himself, without the slightest sympathy or co-operation on the part of Dr. Jackson, who, from alleged fear of his recklessness, withheld from him all countenance and encouragement. In view of these facts, the committee are of opinion, that the *exclusive* claims advanced by Dr. Jackson, though now very extensively recognised in foreign countries, are unfounded, being unwarranted alike by his acts and by his omissions; and that they involve great injustice towards Dr. Morton; that their names will be forever jointly, though not equally, associated in this discovery; Dr. Jackson being entitled to the credit of having rendered readily available the existing knowledge upon the subject of ether, which Dr. Morton was really, though not

avowedly, seeking to obtain ; and Dr. Morton having first demonstrated its safety and efficacy in the prevention of pain during surgical operations ; and that Dr. Morton, by consenting to permit Dr. Jackson's name to be united with his in the patent, with the right to receive *one-tenth* part of its profits, has shown himself disposed, fairly and honorably, to recognise the amount of his indebtedness to Dr. Jackson's advice."

In the report of the committee of the House, in February, 1849, where these questions are carefully examined, the conclusion is against the claim of Dr. Jackson on both these points ; they say :

"It is, however, contended by Dr. Jackson, that in the administration of ether to his patient on the 30th September, and in the subsequent exhibition of it in the hospital, Dr. Morton acted as his agent merely ; that he was, in fact, the experimenter as well as the discoverer, and the merit of success or the responsibility of failure rested on him. This position your committee will now proceed to examine.

"This claim is not supported by the evidence which has been thus far considered ; indeed, it bears strongly against it, and your committee can find no contemporary matter touching this point, except a statement of George O. Barnes, not yet commented upon. The witness, after stating Dr. Jackson's efforts to overcome the scruples of Morton, says : 'Indeed, Dr. Jackson urged the matter very earnestly and with perfect confidence, taking on himself the whole responsibility.' Now, if this be a deduction, an inference from the conversation stated, it is of no value whatever, except to show a certain earnestness in the witness. If it be but a further declaration, it is unsupported by the testimony of McIntire ; and, in a third important particular, differs from and goes beyond him. But the well attested conduct of the parties themselves, at the time of the transaction in which this agency is claimed to have been conferred and accepted, what is termed by lawyers the *res gestæ*, shows more clearly than everything else the true relation which they then bore to each other, and each of them to the subject matter in controversy.

"Dr. Jackson claims that he had long had in his mind a conviction that the vapor of sulphuric ether could be inhaled without danger or injury to the patient, and that under its influence surgical operations could be performed without pain. All admit him to be a man of science, fully aware of the mighty value of such a discovery, and not at all indifferent to his own reputation in the scientific world. In this state of things we cannot conceive it possible that he could have remained inactive for years, waiting till chance should send him some one to bring out his great discovery, instead of proceeding himself by direct experiment. It is not at all disputed that Dr. Morton went to Dr. Jackson's shop that day uninvited ; that *his* wants and not Dr. Jackson's wishes and purposes led to the conversation ; that there

was nothing of an especially confidential nature between them; that what Dr. Jackson said to him, he said in the usual manner of public conversation, and not like a man who was engaging another to bring out a most important discovery to the world.

"But take Dr. Morton to be just what Dr. Jackson and his two witnesses represent him to have been at the time of that conversation, was he the man whom Dr. Jackson would have trusted to represent him in a matter so deeply involving his character and his fame? Say it is Jackson's discovery, the experiment is his, *he* is responsible for the consequences. If it succeed, he has made the noblest contribution to surgical science which the century has witnessed; if it fail, the consequences might be most disastrous. Whom does he select to carry out this, the most important conception of his life or of the age? Let his two witnesses answer.

"According to them, a man profoundly ignorant of the powerful medicinal agent which he was directed to employ—one who did not know what kind of "stuff" sulphuric ether was, and who wished to see it in order thus to test its qualities, is selected by one of the first scientific men of the age to conduct a delicate and dangerous experiment with this same sulphuric ether, on the success of which even more than reputation depended. If Dr. Jackson had dwelt upon the subject, conceived the discovery in his own mind, considered it with a view of making it known to the world and useful to mankind, he knew that much depended on the first public exhibition; and he also knew that it required science, prudence, and skill, to render the experiment successful, and prevent its becoming disastrous. Sulphuric ether would produce insensibility to pain; *too little* of it would make the experiment ineffectual, and bring the operator and his nostrum into ridicule; *too much*, or the proper quantity *unskilfully administered*, would produce asphyxia, probably death. Under these circumstances, how can your committee believe that Dr. Jackson would have trusted such a man as his witnesses represent Dr. Morton to be, with his first experiment upon his great discovery? Would it not have been inexcusable in him to have done so? Would it not have shown a recklessness of his own fame and the lives of his fellow-men?

"Such a conclusion, your committee are satisfied, cannot be imputed to him with justice. Had Dr. Jackson made the discovery and felt that it was his, could he have failed to be at once aware of its vast importance, and the world-wide reputation it would give him, would he have trusted it for a moment in the hands of a man less skillful and scientific than himself? indeed, would he have entrusted it with any one? but would he not have himself seen that it was administered in a proper manner, and under proper conditions to make it safe and effectual? Would he not have stood by and watched the sinking pulse of his first subject, until insensibility was complete, and have been careful to

withdraw it when he saw it was likely to endanger life, and thus done all that science and skill could do to avoid a failure or a catastrophe? But there was nothing of this. Having given the information which he did give in the conversation with Dr. Morton, he turned neither to the right nor left, nor troubled himself further on the subject, until he was advised by Dr. Morton that the experiment had been successful. He expresses no surprise, no emotion; it is an incident of the day—an occurrence. According to the testimony of Barnes, he advises Dr. Morton to try it in some capital operation in the hospital; does not say he will try it himself, which he might or ought to have done, if Morton had been his agent. He does not propose to get permission for Dr. Morton so to try it, though he well knew the application by himself, or in his name, would insure the permission. He advises Dr. Morton to get permission, and try it in the hospital, and does not propose to be present, and in fact is not present when the trial is made, though the hospital was but five minutes' walk from his door. That operation was successfully performed, and another was noticed to take place the next day, about which Dr. Jackson gave himself no concern, and at which he was not present. The committee feel that his conduct during this time was wholly inconsistent with the fact that he recognized the discovery as his own, and that these were his experiments.

“It is urged as a reason for his absence at the first operation in the hospital, that Dr. Morton did not inform him at what time it was to take place. As to this, there is no proof that he did or did not inform him; but surely, had Dr. Jackson felt the solicitude which the discoverer would naturally feel, he would have informed himself, and his daily associations naturally led him to the knowledge. On the other hand, after the successful operation of the 30th of September, and after Dr. Morton had seen his patient and ascertained that he had suffered no injury from the ether—elated with his success, he consulted Dr. Hayden as to the mode of bringing out the discovery, and suggested at once that he would introduce it into the hospital. A few days afterwards, he told Dr. Hayden that Dr. Jackson would not countenance the discovery, and again said he would go to Dr. Warren and endeavor to have it introduced into the hospital. The fact that Dr. Jackson refused to give Dr. Morton a certificate that ether was harmless in its effects, or might be used with safety, is admitted by Dr. Jackson in his defence by the Messrs. Lord; but they say it proves nothing but Dr. Jackson's ‘unwillingness to figure in Dr. Morton's advertisements, and his prudence in refusing to make himself responsible for anything and everything Morton, in his ignorance, might do with an agent liable to the most dangerous abuse.’

“This, if it stood alone, might be satisfactory; but one of the witnesses, Geo. O. Barnes, says that, on the 30th of September,

See
Chandler,
Eddy,
Gould, and
surgeons of
the hospital.

Dr. Jackson employed Dr. Morton to use this very agent. He assured him it would '*not do the least injury.*' He '*urged the matter very earnestly, expressly taking on himself all the responsibility;*' and it was on the first of October, the morning after the *successful* experiment, that Dr. Jackson refused to give a certificate '*that ether was harmless in its effects,*' and yet, on the same day, the witness Barnes says, on being advised by Dr. Morton of the success of the operation, Dr. Jackson said to him: '*You must go to Dr. Warren and get his permission to administer it in the Massachusetts General Hospital, and if possible, it should be on a capital operation.*' And he goes on to say that Morton strongly objected at first going to the hospital; that everybody would smell the ether, and it would not be kept secret; but that, after learning something to disguise the odor, he agreed to apply to the hospital.

"We have already adverted to the fact that Dr. Morton, the very evening after the successful operation, suggested to Dr. Hayden that he would go to the hospital and get permission to try the ether there; that he went next morning to Dr. Jackson, and returned, saying Dr. Jackson would not give his countenance to the discovery; and it is admitted that Dr. Jackson refused him the certificate he wished for, and one of the reasons given is that he did not think him fit to be trusted. Is it, then, probable that he urged him to go to the hospital and there bring out his (Dr. Jackson's) great discovery? But James McIntire was also present on the 1st of October, when Dr. Morton returned and advised Dr. Jackson of the entire success of the experiment, and he says not a word of Dr. Jackson's proposing to Dr. Morton to try an experiment in the hospital. Your committee has already remarked in several other points of difference in the testimony of these two witnesses, and in each case, as in this, they felt themselves constrained by the testimony of other witnesses and by the inherent character of the evidence to rely on the accuracy of McIntyre rather than of Mr. Barnes, where these discrepancies occur.*

"Another difficulty in sustaining the position assumed by Dr. Jackson forcibly impresses itself upon your committee. According to this, on the 30th of September, Dr. Jackson entrusted Dr. Morton with his discovery, and not only suffered him, but '*earnestly urged*' him to use it, assuring him it was perfectly safe; Dr. Morton tried it on the same evening; his success was complete; he brought to Dr. Jackson the next morning conclusive evidence of all this, and Dr. Jackson refused him a certificate because he would not '*make himself responsible for anything and everything Morton in his ignorance might do with an agent liable to the most dangerous abuse,*' while nothing is shown to shake Dr. Jackson's confidence in Dr. Morton since the previous day, or at all to change his opinion of him, except the triumphant success of the

* See J. D. Whitney, United States Geologist, p. 395: that this Barnes had "testified to anything Dr. Jackson wanted him to."

operation which he reported and proved. On the 16th of October, the first operation was performed in the hospital, at which, as we have already shown, Dr. Jackson did not attend, and at which his name was not known. The second operation at the hospital took place on the 17th, Dr. Jackson taking no part in it by his presence or his counsel. Both operations were entirely successful, and both conducted on the part of Dr. Morton to the entire satisfaction of the surgeons of the hospital. But at this time Dr. Jackson's confidence in Dr. Morton, if he ever did confide in him, is wholly gone. He denies, in the conversation with his neighbor and friend, Caleb Eddy, that under the influence of ether the flesh of a patient can be cut without pain; says Morton "is a reckless man for using it as he has; the chance is he will kill somebody yet;" and in the interval between the 30th of September and about the 23d of October, he declared he that did not care what Morton did with it, or how much Morton advertised, if his own name was not drawn in with it.

"It would seem that as Dr. Morton acquired eclat by his constant success, as he continually and rapidly rose in the estimation of other scientific men, he as continually and as rapidly sunk in the estimation of Dr. Jackson. The evidence of Francis Whitman, Mr. Caleb Eddy, and Hon. Edward Warren, show that, prior and up to the 23d October, Dr. Jackson spoke doubtingly of the effect of ether, and condemned its use; and there is no proof whatever that, within that time, he lent the slightest countenance to Dr. Morton to sustain the discovery, and all his remarks, except those stated by Mr. Hitchcock to have been made to him on the 2d and 3d of October, tend to create distrust and destroy confidence both in the operator and the agent used. His favorable mention of it to Dr. Keep occurred *after* the 26th of October, the actual date not fixed, and was accompanied with a strong general charge of ignorance and recklessness against Morton, who was then in the full tide of successful experiment. This state of facts is, in the opinion of your committee, wholly inconsistent with the assumption that Dr. Jackson was the discoverer; that he employed Dr. Morton to bring out the discovery; and that the experiments of Morton were tried on the responsibility of Dr. Jackson."

Dr. Gould,
p. 265; also
Chandler,
p. 258.

The error into which Dr. Jackson has fallen, as to the extent of the concessions which have been made him *by all* who have examined the evidence, is somewhat remarkable, in view of the reasonings and conclusions of these two very able reports upon the distinct points which he claims to have been universally conceded. While neither of them finds it necessary to approach or touch, what he avers to be "the only points contested by" his "opponents," namely: to use his own words, "That I had not a sufficient reason for drawing the inference that I did, as they admit, drawn from my data." "And again, that by inducing an ignorant dentist, a man of no medical knowledge, to perform the

mere mechanical operations made by my advice, and upon my medical responsibility, expressly assumed before witnesses, that I made him a co-partner, or joint discoverer, and that he made the first application of my discovery."

See Drs.
H. J. Bige-
lows, S.
D. Town-
send, A. A.
Gould.

Your committee have looked in vain through all the papers before them, and find no such *admission*; nor do they find the controversy anywhere to turn upon what Dr. Jackson, in this paper, avers to be the "*only points contested*." On the contrary, they find it denied, and to have been all along denied, that Dr. Jackson drew the *alleged inference*, or in any other manner *made the discovery*; or that he employed or engaged Dr. Morton to administer the ether vapor, on his (Dr. Jackson's) responsibility. These are the questions which your committee find to be *the questions in issue*, and which have been, from the first claim made by Dr. Jackson, in issue. This erroneous statement somewhat weakens the credit of the paper for accuracy, but it is to be regretted only in so far as it may tend to mislead the distinguished apostle of science in a foreign land, to whom it was directed.

Dr. Jackson's first claim to the discovery which appears on paper, is in a letter addressed to M. Elie de Beaumont, dated Boston, 13th November, 1846, which was opened and read to the Academy of Arts and Sciences at Paris, at their meeting, 18th January, 1847. It is thus introduced:

"M. Elie de Beaumont requested the opening of a sealed packet which had been deposited at the meeting of 28th of December, 1846, and which contained two letters from Mr. Jackson, of which the following are extracts: first letter—

"*Boston, 13th November, 1846.*

"I request permission to communicate through your medium, to the Academy of Sciences, a discovery which I have made, and which I believe important for the relief of suffering humanity, as well as of great value to the surgical profession. Five or six years ago I noticed the peculiar state of insensibility into which the nervous system is thrown by the inhalation of the vapor of pure sulphuric ether, which I respired abundantly: first by way of experiment, and afterwards when I had a severe catarrh, caused by the inhalation of chlorine gas. I have latterly made a useful application of this fact, by persuading a dentist of this city to administer the vapor of ether to his patients, when about to undergo the operation of extraction of teeth. It was observed that persons suffered no pain in the operation, and that no inconvenience resulted from the administration of the vapor."

In a second letter of December 1st, 1846, Dr. Jackson authorizes the opening of the above letter. The following is an extract from it, and the explanatory remarks of M. Velpeau: second letter—

"1st December, 1846.

"The advantage of the appreciation of the vapor of ether has been completely established in this country, and the agent has been used with great success at the Massachusetts General Hospital."

On this point Mr. Velpeau made the following remarks:

"The secret contained in the note which has been read is no longer a secret; the medical journals published in America and England have divulged it in the months of November and December. A letter from Dr. Warren, of Boston, communicated the information to me more than one month ago; and Dr. Willis Fisher, of the same city, proposed that I should try its effects at La Charité towards the middle of last December."

The present object of quoting these letters is to show the account which Dr. Jackson then gave of his experiment in 1841-'42. It, in truth, goes no further than prior experiments had made familiar to the medical faculty. The *Edinburg Medical Journal* of April 1st, 1847, speaking of it, says:

"In the administration of ether vapor there is, therefore, nothing new. Its narcotic and anodyne effects have been long well known to experienced and well-informed observers. The application of ether vapor, nevertheless, as an anodyne previous to surgical operations, suggested a mode of exhibition which, besides being new, has the merit of being more efficient than the methods in ordinary cases."

Dr. Jackson's trial in 1841-'42, as stated by him in the above letter, was a mere application of its well-known narcotic and anodyne properties. In a paper published by Dr. Jackson in the *Boston Daily Advertiser* of March 1st, 1847, he adds to the statement in his letter to M. Elie de Beaumont but one distinct fact—relief from the pain of his catarrh during the effect of the inhalation of the vapor of sulphuric ether, and its return presently afterwards. The same fact is stated as having occurred in Dr. Thornton's practice, first published in 1795-'96.

In a letter written by Dr. Jackson to Dr. Martin Gay, dated May 1, 1847, he professes to give an account of his "experiments and observations made several years ago on the inhalation of the vapor of pure sulphuric ether." He states his experiments as follows: The first:

"I moistened a cloth and laid it over my mouth and nostrils, and laid myself back in a rocking chair, and inhaled the vapor, noticing its effects on the system. The first impression was that of coolness, then a sensation of warmth and exhilaration, with a

singular feeling of excitement in the chest. This was followed by a loss of consciousness, from which I in a short time awoke; soon afterwards I entirely recovered from the effects of the ether."

The second :

"Afterwards, still suffering from the effects of the chlorine, I thought I would try the ether vapor again, and for a longer time. I went, therefore, into my office, which is connected with my house, and taking the bottle of pure sulphuric ether from the laboratory, I soaked a folded cloth in it, squeezed it out slightly, and seating myself in a rocking chair, with my feet resting upon another chair, I commenced inhaling the ether from the cloth, which was placed over my mouth and nostrils, while my head was laid back against my chair, so that I was quite at ease in a fixed position. The effects of the inhalation were as before described, excepting that it made me cough at first. I was, therefore, led to believe that the paralysis of the nerves of sensation would be so great, during the continuance of the insensibility, that a surgical operation might be performed upon a patient under its influence, without giving him any pain; for the loss of consciousness was remarkable, perhaps resembling that of epilepsy more than any other kind of insensibility."

On the 18th of May, 1848, something more than a year afterwards, the contest about the discovery all the time going sharply on, and new facts daily developing themselves in the use and effects of sulphuric ether, Dr. Jackson addressed a letter to Joseph Hale Abbott, Esq., giving, as he says, "a more minute statement, than I have heretofore published, of the effects produced upon me by sulphuric ether, when I inhaled it for relief from the distress occasioned by the inhalation of chlorine in the winter of 1841-'2. And, also, a statement of the precise ground, which I have never published, of the idea then conceived by me that pure sulphuric ether could be used with safety and success to prevent pain in surgical operations.

"I will add that in my published letter to Dr. Gay, I neglected, through inadvertence, to state one of my principal reasons; which, as will be seen by this pamphlet, I had mentioned to him, in conversation, for the inference I drew from my observations. The experiment referred to above, in the course of which I observed that sulphuric ether produced insensibility to pain, was as follows: Having taken a bottle of pure sulphuric ether from my laboratory, I went into my office, soaked a folded cloth with it, squeezed it out slightly, and seated myself in a rocking chair. Having laid my head back against the rocking chair, with my feet supported by another, so as to give me a fixed position, I placed

the cloth over my mouth and nostrils and commenced inhaling the ether. The effects perceived by me were at first a little coughing, a sensation of coldness, then warmth and fullness of the head and chest, exhilaration and giddiness, numbness and want of feeling in the feet and legs, a swimming sensation, as if I had been afloat in the air, together with a loss of all feeling of the rocking chair in which I was seated—loss of all sensation of pain in the throat and chest—a state of reverie, and soon entire unconsciousness, for a space of time unknown to me. Recovering, I felt a sense of giddiness, but with no desire to move—found the cloth I had moistened with ether had dropped from my mouth—had no feeling of pain in the throat and chest, but began to feel a strange thrilling in the body. In a short time, I felt the soreness in the throat gradually returning, and the distress in the chest also, though much less than it had been before. From the cessation of all pain, and the loss of all feeling of external objects, a little while *before* and *after* the loss of entire consciousness, I was led to infer that the paralysis of the nerves of sensation would be so great during the continuance of the unconsciousness and the total loss of feeling, that a surgical operation could be performed upon a patient, under the influence of ether, without giving him any pain; and, therefore, I prescribed it with entire confidence in the result.”

Next follows, on the 18th of December, 1851, the narrative to Baron Von Humboldt, above set forth, but to which your committee think proper to refer again, specially, in this connexion. After stating the accidental inhalation of chlorine gas, and the means used to destroy its effects, he says: “The next morning my throat was severely inflamed, and very painful, and I perceived a distinct flavor of chlorine in my breath, and my lungs were still much oppressed. I determined, therefore, to make a thorough trial of the ether vapor, and for that purpose went into my laboratory, which adjoins my house in Somerset street, and made the experiment from which the discovery of anæsthesia was induced. I had a large supply of perfectly pure washed sulphuric ether, which was prepared in the laboratory of my friend, Mr. John H. Blake, of Boston. I took a bottle of that ether and a folded towel, and seating myself in a rocking chair, and placing my feet in another chair, so as to secure a fixed position as I reclined backward in the one in which I was seated. Soaking the towel in the ether, I placed it over my nose and mouth, so as to inhale the ether mixed with the air, and began to inhale the vapor deeply into my lungs. At first the ether made me cough, but soon that irritability ceased, and I noticed a sense of coolness, followed by warmth, fullness of the head and chest, with giddiness and exhilaration; numbness of the feet and legs followed; a swimming or floating sensation, as if afloat in the air. This was accompanied with entire *loss of feeling*, even of contact with the

chair in which I was seated. I noticed that all *pain had ceased in my throat*, and the sensations which I had were of the most agreeable kind. Much pleased and excited I continued the inhalation of the ether vapor, and soon fell into a dreamy state, and then became unconscious of all surrounding things. I know not how long I remained in that state, but suppose that it could not be less than a quarter of an hour, judging from the degree of dryness of the cloth, which, during this state of unconsciousness, had fallen from my mouth and nose, and lay upon my breast. As I became conscious I observed still there was no feeling of pain in my throat, and my limbs were still deeply benumbed, as if *the nerves of sensation were fully paralyzed*. A strange thrilling now began to be felt along the spine, but it was not in any way disagreeable. Little by little sensation began to manifest itself, first in the throat and body, and gradually extended to the extremities, but it was some time before full sensation returned, and my throat became really painful.

“Reflecting upon these phenomena, the idea flashed into my mind that *I had made the discovery I had so long a time been in quest of*; a means of rendering the nerves of sensation temporarily insensible to pain, so as to admit of the performance of surgical operation on an individual without his suffering pain therefrom.”

These statements would have been entitled to much more weight, in the estimation of your committee, if all the facts alleged to have been observed, and conclusions drawn, in 1841-'2, as stated in the letter to Baron Von Humboldt, of December 18, 1851, had appeared in the letter to Elie de Beaumont of November 13, 1846, or even in that to Dr. Gay, of May 1, 1847; but such is by no means the case. Each successive letter states the case more strongly than the last preceding, and the facts superadded in the later letters are those which alone give novelty and importance to the experiment.

In closing his statement of the last and final experiment in 1841-'2, in the part of the letter of December 18, 1851, to Baron Von Humboldt, last above set forth, Dr. Jackson says, “reflecting upon these phenomena, the idea flashed into my mind that *I had made the discovery I had for so long a time been in quest of*; a means, &c.” And he goes on to give, formally and in detail, the scientific deductions which he says were made at the time, and which then led him to the conclusion. If that statement be true, the discovery at that time, so far as private experiment and philosophical deduction could go, was as full and complete as it was on the morning of October 1, 1846, after Dr. Morton's successful operation on Eben Frost.

Now, if Dr. Jackson, in the winter of 1841-'2, did, in fact, make such discovery, and in earnestness, and in faith, and enthusiasm, was possessed with it, and with an animating desire to give it, and to give his name with it, to mankind, how happens it that

no contemporary written paper or pen-mark, under the hand of Dr. Jackson, or some one of his numerous friends or pupils, remains to attest the discovery? No private memorandum of his own, detailing his experiments and his scientific deductions from them; nothing, in case of sudden death, to connect his name with the discovery, and secure the discovery itself to the world?

The paper above referred to, of November 13, 1846, written after the discovery had been in fact made—after the first capital operation had been successfully performed under the superintendence of Dr. Morton, and after Dr. Jackson had nearly made up his mind to claim the discovery as his own, was enclosed to M. Elie de Beaumont, with directions to file it in the Academy of Arts and Sciences of Paris, but not to break the seal until thereto directed. This paper, its seal and its custody, show that Dr. Jackson knew how to save a secret and yet preserve the evidence of a discovery; and it shows that he was not negligent or tardy, but hastened to take a formal contingent possession of this discovery in Europe before he witnessed, even as a spectator, a single operation under the influence of the new anæsthetic agent. It seems that he had not yet *fully* made up his mind to claim the discovery. He wanted further verification of the safety and efficacy of the anæsthetic agent before he took the decisive step of announcing it as his own. He therefore directed the letter making the claim to the discovery to be deposited, *sealed*, in the Academy of Arts and Sciences at Paris, not be opened until he should direct.

The success of the pain-subduing agent from that day till the first of December, 1846, removed all doubt. The discovery was established. It already stood first in rank in the discoveries of the century, and fame, and honor, and rewards awaited the discoverer. Dr. Jackson, on that day and under these circumstances, wrote the letter last above copied, to M. Elie de Beaumont, directing him to open the sealed packet, and publish him, Dr. Jackson, to Europe, as the discoverer.

Considering the man and the discovery; the inestimable value of the discovery; the knowledge of the man, and his capacity to appreciate its value; his full application of it when satisfied that the discovery was in fact made, and his eager promptitude in then seizing and appropriating to himself at least all that was his; your committee cannot believe it possible that he should have been for a long time in earnest pursuit of the discovery, that he should have made it and perfected it in 1841-'2 by experiment and deduction, that he should, for nearly five years have been in possession of it and with his full estimate of its value, and yet that he should not in its inception or progress *record it*, somewhere, at some time, on something more fixed and reliable than mere frail, uncertain, and mutable memory.

“Is not this a good offset to the German invention of gun-cotton. In this country I don't know which discovery produced the most excitement. It is curious that they should have been overlooked so long!”
Letter of Dr. Jackson to J. D. Whitney, 1846.

He knew well, if he thought on the subject at all, that but a thin veil separated the familiar and daily walks of the faculty from the spot where lay his hidden treasure. Did he not fear that some one would lift the veil? He knew it was but a step, and that a short one, from what was well known to the discovery itself. Did he not fear that some one would take that step and seize the prize which he could then so easily secure to himself forever? If he made the discovery in 1841-'2, and was not yet prepared to disclose it, there was reason then for placing in the archives of some European and some American academy a sealed paper, giving an account of the facts observed, and the deductions drawn at the time, that this much at least might be beyond the reach of rivalry and chance. But was there any just reason for this when he committed the sealed letter above referred to to M. Elie de Beaumont? The discovery was public and in public use in Boston for more than a month before that letter was written and sealed. The packet ship that carried that letter bore also the news of the discovery to Europe. What secret did this paper contain, that it must be kept under seal until the next arrival from America? Nothing, surely, which was public in Boston when the packet sailed; public also, of course, on board of the ship, and which must be public over all Europe within twenty-four hours after she should touch the Liverpool docks.

The sealed letter contained but one single secret not known over the European and American world, before it reached the hands of M. Elie de Beaumont, namely: that Dr. Charles T. Jackson claimed the discovery as his. And why did he not then avow it, and proclaim it, instead of requiring his claim to remain under the seal of secrecy till the next arrival? His letter of 1st December gives the reason. It advises M. Elie de Beaumont that the success of the newly discovered anæsthetic agent is complete, and directs him to open, therefore, the sealed packet, and disclose its contents to the Academy. He did so; and Dr. Jackson was forthwith in possession of the discovery in Europe.

Until the first capital operation under the influence of the vapor of ether, which took place on the 7th of November, 1846, Dr. Jackson had evidently no fixed confidence in its success as an anæsthetic agent. Nor did this seem to satisfy him fully. Six days after this he sent his sealed statement to be deposited in the Academy at Paris, and not until many more successful operations had been performed under the superintendence of Dr. Morton, and until the last doubt of the incredulous was removed, did he direct publication to be made of his claim to the discovery. It is not to be credited that he had already possessed this discovery for five years, and knew its value and felt the enthusiasm of the discoverer; that he held it and believed in it and rejoiced in it for five years, and yet, that no word or line was ever written by him or any one of his numerous confidential friends to him, or for him, until the

letter of November 13th, 1846, hinting even darkly at his possession of the mighty prize. And the difficulty is greatly increased when these striking facts are considered in connexion with this letter, embodying the first written statement of Dr. Jackson's alleged discovery. The accounts there given of his alleged experiments in 1841-'42, show no new discovery, but a mere repetition of a well known prescription for its usual purpose, attended with effects also before that time well known. And the medical journals from the other side of the Atlantic, which returned with a review of the discovery, show this fact, and comprise all the merits of the discovery in the successful application of the vapor of sulphuric ether as an anæsthetic agent in an actual surgical operation. These journals, with this criticism and judgment, had been in the hands of the American public more than a month before Dr. Jackson published his amended and extended statement of March 1st, 1847, and more than three years before his letter of 18th December, 1851, to Baron Von Humboldt, the statement in which, if it be believed, supplies all deficiencies except the want of a public experiment, or one at least made in the presence of witnesses. But it is strange, if that statement be true, that Dr. Jackson, from 1841-'42, to September 30, 1846, never applied that crowning test; that after he professed to have perfected the discovery by philosophical experiment and induction, he suffered it to sleep for five years, during which time he never made another experiment of any kind on himself or on another person, or even on a domestic animal; that, from first to last, he never made an experiment of any kind in presence of witnesses. Indeed, for several years prior to 30th September, 1846, the use of sulphuric ether appears to have ceased in his laboratory, for in his letter to Baron Von Humboldt, giving his version of the interview with Dr. Morton on that day, he says:

See Drs.
Bigelows,
Warren,
Hayward,
Townsend,
and Gould.

“He (Morton) asked me to let him take the bottle of sulphuric ether which I had just shown him; but *since it had been standing in the laboratory for some years, I feared it might have become deteriorated.* I therefore advised him to go to Mr. Burnett, one of our best apothecaries, and get some pure sulphuric ether.”

Dr. Jackson evidently feels that the long delay, from 1841-'42 to 1846, in bringing out his alleged discovery, and the sudden and abrupt manner in which he professes to have placed it in the hands of a man whom he stigmatizes as an “*ignoramus*” and a “*quack*,” require explanation; and in his letter to Baron Von Humboldt, he gives the following:

“It is obvious enough to those who know the circumstances, why I engaged an ignorant man to introduce my discovery. I had already, before Mr. Morton came to Boston and set up as a den-

tist, endeavored to engage more responsible persons to make trial of the ether in their practice, but they declined doing so, knowing that the medical and toxicological books declared it to be a *dangerous experiment*, while I insisted that it was not dangerous. They thought that in their medical capacity they would incur responsibility for any accidents that might happen to the patients, and hence feared to act.”*

If Dr. Jackson made, in truth, this great discovery in the winter of 1841-'2, and was conscious of its truth and its value, the above statement, in the opinion of your committee, falls far short of a sufficient explanation of the fact that he so long delayed announcing it to the world. According to him, the discovery was complete as soon as he awoke from the state of unconsciousness into which he had been brought by inhaling the ether vapor. All was complete, except to bring it out by an actual experiment in the presence of the surgical faculty; as complete, so far as he was concerned, as it was on the morning of the 30th of September, 1846. Now, can it be believed, that during more than four years that intervened between the time of the alleged discovery and the public experiments of Dr. Morton, no available means offered themselves to Dr. Jackson to test it, and disclose it, and prove it to the world? He says, “and it is well known that the vapor of sulphuric ether was sometimes inhaled by the young men at college.” Could he not, after this discovery, have been present, and after leading the way himself, have induced some of them to inhale it until it produced insensibility? Could he not have himself inhaled it before his friends and associates of the hospital, and satisfied them of its safety by his speedy recovery, of its complete suspension of all sensibility to pain by usual tests with which he was familiar, or even something more decisive, as the actual cautery applied for an instant to some sensitive part? Conviction would have followed a simple and safe exhibition like this, and his associates, members of the faculty of the hospital, would not have hesitated to further test the discovery by surgical operations. Indeed, we cannot suppose that they would have hesitated to do so at once on his mere statement of the experiment upon himself, as given to Baron Von Humboldt, and his assurance that it produced anæsthesia, and was attended with no injurious effects. They did not hesitate to grant it to the representations of Dr. Morton—a young man almost a stranger to the faculty. Dr. Jackson, it seems, too, believed they would grant it thus readily, for he says he directed and urged Dr. Morton to go and ask it, to which he says Dr. M. reluctantly consented; and Dr. Jackson gave him no written paper, and spoke no kind word in his behalf to any of the faculty. With the extraordinary facilities for bringing out such discovery, which Dr. Jack-

* “Having no patients, and being engaged in other business, I had to employ others, viz: Morton and the hospital surgeons.”—Letter to J. D. Whitney, 1847.

son had at his very door; with his own high scientific position, which enabled him fully to command them, your committee cannot believe that he made the discovery, and was compelled by a kind of necessity so long to withhold it from the world. Dr. Jackson shows no such necessity. Nor can your committee believe that he had the secret, and held it for any reason or from any motive, a buried talent for nearly five years; that he witnessed from time to time, during all that long period, the agony of the human frame under the tortures of the cautery, the scalpel, and the knife, and remained silent, while he had, and knew he had, sovereign power over pain, and could banish it instantly with a breath.

But Dr. Jackson, in his own conduct and bearing in reference to this discovery, and its verification and presentation before the public, from the 30th of September, 1846, down to the time that it was fully established, proves that he was not, and did not believe himself to be the discoverer. Giving Dr. Jackson the full benefit of the favorable opinion which he entertained of Dr. Morton, before he had determined to become his competitor for the honor of the discovery, which appears by his certificate, namely, that he was a young man of marked energy and intelligence, and very creditable acquirements, in such branches of science as pertained to his profession, still it is not within the range of probability that Dr. Jackson, had he possessed the discovery, would have intrusted him or any one else to test its merits in the manner and under the circumstances in which he professed to have intrusted it.

He unquestionably believed Dr. Morton ignorant of sulphuric ether, its properties and its use, and supposed he had never thought of its application in the manner proposed. Surely he would not select a man, ignorant of the anæsthetic agent itself, to perform the delicate operation of first testing its efficacy and safety. He knew how much depended on its first exhibition, and he also knew that it required science and skill to render the experiment successful, and to avoid danger and disaster. Sulphuric ether would produce insensibility to pain, too little of it would make the experiment ineffectual and expose the operator to ridicule, too much, or the proper quantity unskilfully administered, would produce asphyxia, perhaps death. Under these circumstances Dr. Jackson could not have trusted a young man, without medical knowledge, and without the knowledge of sulphuric ether, or its effects, to conduct his first great experiment, and he himself think it not worth his while to be present. But, according to his own statement, he gave to Dr. Morton no sufficient instruction correspondent with the mighty mission on which he was sent. He gave all the instruction which he saw fit to give in ten or fifteen minutes, he *walking*, and his pupil, according to his last statement, *capering* about the laboratory. He dispatched him, however, on his

mission of mercy, to banish pain from the human race, and he himself quietly took his seat again in his laboratory, and troubled himself no further about the result.

Dr. Jackson, had he thought on the subject, knew well that the effects of ether vapor would be different on different persons, and even on the same person in different states of the system. Had he been about to bring out his own discovery, the crowning honor of his life, he would not only have attended in person to the skilful administration of the anæsthetic agent, but he would have been especially careful in the selection of a subject. On the contrary, if this was his experiment, he directed its trial on the worst subject conceivable, a nervous and refractory patient who refused to submit to an operation. That was what Dr. Morton professed to have on hand, and in reference to which Dr. Jackson says he disclosed his discovery and gave directions for its application. The first operation was really performed on a fortunate subject, such a one as Dr. Jackson might well have selected; but he knew nothing of this, or of anything other and further than the refractory patient. But Dr. Morton returned to Dr. Jackson's laboratory the next day, and reported the success of the experiment. Dr. Jackson, according to the testimony of Barnes, one of his witnesses, is quite unmoved, and expresses no surprise, but advises, and, as Dr. Jackson himself says, urged Dr. Morton to go to Dr. Warren and get his permission to try it in a capital case at the hospital. Now, if Dr. Jackson were really the discoverer, and had employed Dr. Morton to make the experiment *for him*, and as his agent, why did he send *him*, or advise or urge *him* to go to the hospital at all? He refused him a written certificate that the anæsthetic agent which he used was harmless, because, as his former counsel, the Messrs. Lords, said for him, of an "unwillingness to figure in Morton's advertisements, and his prudence in refusing to make himself responsible for anything and everything Morton in his ignorance might do with an agent so liable to the most dangerous abuse." How came he, then, to trust Dr. Morton with this agent? Why did he urge him to go with it to the hospital? He says in his letter to M. Elie de Beaumont that the experiments in the hospital were his. He had his anæsthetic agent tested there in a capital experiment. He sent Dr. Morton to Dr. Warren to ask its admission in the hospital; and yet refused Dr. Morton a written certificate of the safety of the agent because he would not "*make himself responsible.*" And who was responsible? We have no hesitation in saying that Dr. Jackson's claim to these experiments is unfounded, and his statements so far untrue, or he was guilty of bad faith towards Dr. Morton, and especially toward the faculty of the hospital.

But the question recurs, why did he urge Dr. Morton to go to the hospital at all? He does not pretend to have employed him

as his sole and only agent to bring out his discovery. On the contrary, according to the statement of Barnes, his witness, Dr. Jackson, on the 1st of October, when applied to by Dr. Morton to keep the discovery secret, replied "No! I will have no secrets with my professional brethren." He was under no obligations to Dr. Morton. Why did he send him to the hospital? He had trusted Dr. Morton in one case only; if he did not think it worth his while to attend at the hospital himself and see in person to the administration of the anæsthetic agent in a capital case, he might have trusted it to some one of the learned surgeons of the hospital, to whom he could in a few minutes time have communicated all the information which he gave to Dr. Morton but the day before. He would then also have been free from all responsibility, which, though refused *in writing*, he says was *assumed before witnesses*, for what, in the language of Dr. Jackson's counsel, "*Morton in his ignorance and rashness might do with an agent so liable to the most dangerous abuse.*" This would have been consistent. If he engaged a dentist to use his discovery when he should *extract a tooth*, would he not have engaged a surgeon to use it when he should amputate a limb? For what possible reason, if his statement be true, could he send the dentist, who was profoundly ignorant of his anæsthetic agent, to administer it in a capital surgical operation among learned and skilful men, and at the same time advise him how to disguise it so that they might not know what he was using? He was determined to have no secrets with his professional brethren, and that he would tell them all that he had told Dr. Morton; yet he put Dr. Morton in possession of a convenient means of disguising the agent, and keeping secret the *actual discovery*. This was consistent and right if it were Dr. Morton's discovery; but a self-contradiction on the instant, almost in the same breath, if it were his own. It is clear to us, that at this time Dr. Jackson did not claim the discovery, but held himself in such position that he might at any moment assert an interest in, or repudiate and condemn it. Sometimes the experiments of Dr. Morton were successful, and Dr. Jackson spoke well of the discovery to a few special friends, as Mr. Hitchcock and Mr. Sumner. Sometimes the experiments were unfortunate, as in the case of the boy supposed to be poisoned, and Dr. Jackson doubted the success of the discovery, and censured Dr. Morton, as in his conversation with Caleb Eddy and Francis Whitman.

See
Chandler.
p. 258.

"On the 16th of October," says the former committee, "the first operation was performed in the hospital, at which, as we have already shown, Dr. Jackson did not attend, and at which his name was not known. The second operation at the hospital took place on the 17th, Dr. Jackson taking no part in it by his presence or his counsel. Both operations were entirely success-

See testimony of
the surgeons.

See Caleb
Eddy, p.
286.

ful, and both conducted on the part of Dr. Morton to the entire satisfaction of the surgeons of the hospital. But at this time Dr. Jackson's confidence in Dr. Morton, if he ever did confide in him, is wholly gone. He denies, in the conversation with his neighbor and friend, Caleb Eddy, that under the influence of ether the flesh of a patient can be cut without pain; says Morton 'is a reckless man for using it as he has; the chance is he will kill somebody yet;' and in the interval between the 30th of September and about the 23d of October, he declared that he did not care what Morton did with it, or how much Morton advertised, if his own name was not drawn in with it.

"It would seem that as Dr. Morton acquired eclat by his constant success, as he continually and rapidly rose in the estimation of other scientific men, he as continually and as rapidly sunk in the estimation of Dr. Jackson. The evidence of Francis Whitman and Mr. Caleb Eddy show that, prior and up to the 23d of October, Dr. Jackson spoke doubtingly of the effect of ether, and condemned its use; and there is no proof whatever that, within that time, he lent the slightest countenance to Dr. Morton to sustain the discovery, and all his remarks, except those stated by Mr. Hitchcock to have been made to him on the 2d and 3d of October, tend to create distrust and destroy confidence both in the operator and the agent used. His favorable mention of it to Dr. Keep occurred *after* the 26th of October, (the actual date not fixed,) and was accompanied with a strong general charge of ignorance and recklessness against Morton, who was then in the full tide of successful experiment. This state of facts is, in the opinion of your committee, wholly inconsistent with the assumption that Dr. Jackson was the discoverer; that he had employed Dr. Morton to bring out the discovery, and that the experiments of Morton were tried on the responsibility of Dr. Jackson.

See R.
H. Eddy,
p. 397.

"On the 30th of September, the first successful operation took place. On the 1st of October, Dr. Morton applied to R. H. Eddy, agent for the patents, to aid him in procuring a patent for the discovery. Mr. Eddy took the case into consideration, and did not see Dr. Morton again until the 21st. In the meantime, Dr. Morton's experiments had been attended with the most flattering success. Two operations had been performed in the hospital to the entire satisfaction of the faculty, and the discovery had acquired a footing in the medical world; and prior to the 21st, but the precise day is not stated, Dr. Jackson had a conversation with Mr. Eddy, was informed of the application of Dr. Morton for a patent, and claimed that he had some connexion with Dr. Morton in making discovery. He called on Dr. Morton on the 23d, and it was then arranged that Dr. Jackson was to have \$500 for the information he had given Dr. Morton, if ten per cent. on the proceeds of the patent would produce that amount.

"This arrangement between the parties, settled by and between themselves, in a private conference, proved by their subsequent conversation with Mr. Eddy, and now denied, shows conclusively the view that each had of his respective participation in the discovery. It was, between them both, distinctly a business transaction—an affair of dollars and cents, and as clearly Dr. Jackson called and introduced the conversation—not to assert his rights to the discovery—not to inquire as to its success, for of this public report had advised him—not to give any advice or caution as to its further use, but to claim a compensation in money for the advice and information he had given to Morton on the 30th of September; and \$500, if ten per cent. on the proceeds of the patent would produce it, was agreed upon as the sum to be paid for that information. This conversation and agreement is entirely consistent with the view we have thus far taken of the case, but it is wholly inexplicable on the ground assumed by Dr. Jackson."

This agreement being concluded, Dr. Jackson went home, as he himself admits, and charged Dr. Morton \$500 on his books, for the information which he had given him. This is the first entry or pen mark made by Dr. Jackson with regard to this discovery, which has come to the knowledge of your committee. It is true Dr. Jackson insists that the arrangement, in pursuance of which the entry was made, was obtained from him by the falsehood and subtlety of Dr. Morton. The assertion is easily made, but of little value against the contradictory statement of Dr. Morton, and the whole sequence of facts going fully to sustain that statement. A written paper, signed by Dr. Jackson on the 27th of October, 1846, sustains the arrangement resulting in the entry by Dr. Jackson; but this, also, he attempts to invalidate, on the alleged ground that it was altered without his knowledge or consent by Mr. Eddy, the Patent Solicitor, after he had agreed to sign it, and before he signed it, and that thus a false paper was palmed upon him. This statement is also wholly unsupported, and at variance with proof and probability. The former committee, in speaking of the conversation testified to by Mr. Eddy, and the arrangement that Dr. Morton should pay Dr. Jackson \$500, if ten per cent. on the proceeds of sale would amount to it, say:

"But the representations and advice of Mr. Eddy, the common friend of the parties, modified their arrangement. He represented to Dr. Morton that Dr. Jackson, from having given him the information and advice spoken of on the 30th of September, was entitled to participate in the patent as a joint discoverer. That if he were not joined in the patent, the fact of his giving that information would be used to impeach the patent, and that if Dr. Jackson were joined as a patentee, his name, and his advice and assistance would be useful in bringing out the discovery, and giving it celebrity. With these arguments Dr. Morton was satisfied, and

See Eddy
again.

consented that Dr. Jackson should be named as a joint discoverer in the patent. Mr. Eddy also advised with Dr. Jackson, who informed him that, 'by the laws of the Massachusetts Medical Society, he would be prevented from joining with Dr. Morton, in taking out a patent, as he would be expelled from the association if he did so. He further stated that he intended to make a professional charge of \$500 for the advice he had given him, and that Dr. Morton had acceded to this; that he did not wish his name coupled with Dr. Morton in any manner; that Dr. Morton might take out a patent, if he desired to do so, and do what he pleased with it.' At a subsequent interview, prior to the 27th October, Mr. Eddy urged Dr. Jackson to waive his objections to associating with Dr. Morton, as 'I was confident that he was mistaken in his views as to what would be the action of the medical association; that Dr. Morton could not properly take out a patent without him; and that by joining in the patent, he would, of a certainty, be obtaining credit as a discoverer; whereas, should he not do so, he might lose all credit, as in the case of the magnetic telegraph, which I understood from Dr. Jackson, he had suggested to Professor Morse.' The objection as to the medical society was removed, on consultation with Dr. Gould. Dr. Jackson consented to join in the patent, and it was agreed that he should have ten per cent. of the proceeds for his interest in it."

In settling the question to whom belongs the honor of the discovery, it is unimportant whether Dr. Jackson did, or did not desire to give it freely to the world. Such desire, if he had it, did not make the discovery his; and if it were not in fact his, the desire is without merit. In one point of view only, is the patent question and contest relevant, namely: to show what the parties understood of their several rights: nor would we touch upon that, after the above examination of the subject by the former committee of the House, but to add to it another item of evidence. After this controversy had arisen and waxed warm, on the — day of January, 1847, Messrs. Loring & Hays, the counsel for Dr. Jackson, addressed a letter to Dr. Morton, of which the following is an extract:

"It seemed best that the differences between Dr. Jackson and yourself should not be made public; on the contrary, that it should be generally understood the difficulties were in the course of adjustment. * * * We have uniformly said, when inquired of, that we were making arrangements that we hoped would distribute the profits of the discovery in such a manner that would be satisfactory to all parties.

"Under the present circumstances of the case, we think the least that, in justice to yourselves and Dr. Jackson, you can offer, is twenty-five per cent. of the profits arising from the invention, both at home and abroad, in settlement of his claim upon you. * *

"It is our wish to settle the matter amicably, if possible. We hope you will see, by our suggestions, that we wish only to have a fair distribution of the profits of a discovery made among those who cannot, if they disagree, effectually sustain the patent; and which, if sustained, *promises to give to all parties large sums of money for their united co-operation.*"

The proposition was rejected by Dr. Morton. This transaction shows the view that the parties each entertained, at that time, of his rights in the discovery; and it does not, in the opinion of your committee, place Dr. Jackson in a favorable position to denounce the patent, in the profits of which he desired thus to participate, as "*an infamous speculation on human suffering.*"

The former committee proceed to say:

"Your committee do not feel that on this question of fact the parties ought to be bound by the legal conclusions of their common friend, Mr. Eddy, or by the papers which they executed in pursuance of his legal advice. But they do consider the communications made by them at the time to Mr. Eddy, the mutual agreement of the parties between themselves as touching the discovery, and the facts admitted by them on the consultation, as matter of the utmost importance and significance. A voluntary agreement took place between the parties on that day, of which both must have understood the full force and effect, and to which neither seems to have been, or probably could have been, impelled by advice or counsel. It was that the whole right to use the discovery under the patent should be and was assigned to Dr. Morton, he paying to Dr. Jackson ten per cent. on all sales for licences.

"Your committee cannot here fail to remember the unqualified terms of contempt and reprobation in which Dr. Jackson had, during the preceding part of the month down almost to the very date of this arrangement, spoken of Dr. Morton and his alleged ignorance and recklessness in the use of this agent. They cannot conceive it possible, if he felt himself to be the true discoverer, that he would, by solemn contract, relinquish all power over his discovery, and place it solely in the hands of a man of whom he thought so illy. Dr. Jackson indignantly repels the idea that it was done for the purpose of gain; and we think it could not be the case, as the pittance reserved to him, if he conceived himself the discoverer, was so despicably small. And how could he hope to acquire *fame* by abandoning the most important discovery of the age?—one which, if it were his, and if under the auspices of his reputation, with his skill and science, it were presented to the world, could not fail to place him on the highest scientific and professional eminence. How could he hope to acquire fame by thus surrendering all control over the discovery, and placing it

in the hands of such a man as he had represented and still represents Dr. Morton to be?

"A careful examination of the above detailed acts and conversations of the parties, down to the 27th of October, about which it would seem to your committee there could be no doubt, renders it clear, almost to demonstration, that neither Dr. Jackson nor Dr. Morton, nor any of those who had witnessed or aided in the operation, supposed that Dr. Jackson was entitled to the merit of this discovery, or any other merit than that of having communicated important information to Dr. Morton; and if we trace the conduct of the parties further, this opinion is but confirmed.

"On the 7th of November, a capital operation was performed by Rr. Hayward, in the hospital, the patient being under the influence of sulphuric ether, administered by Dr. Morton. Dr. Warren being informed by Dr. Jackson that he suggested the use of sulphuric ether to Dr. Morton, invited him to attend and administer the ether. He declined, for two reasons: one was that he *was going out of town*; the other, that he could not do so consistently with his arrangements with Dr. Morton; so the first capital operation, under the influence of ether, was successfully performed, Dr. Jackson not yet thinking fit to attend. But in a communication published in the Boston Daily Advertiser, of March 1st, 1847, he says: 'I was desirous of testing the ether in a capital operation, and Dr. Warren politely consented to have the trial made: and its results proved entirely satisfactory, an amputation having been performed, under the influence of the ethereal vapor, without giving any pain to the patient.' It strikes the mind with some surprise that Dr. Jackson should claim this operation as an experiment made by him at his request, and to satisfy himself of the efficacy of the 'ethereal vapor' in a capital operation, when the only connexion which he had with the operation was to decline attending it when specially invited. Indeed, so entirely did he omit to inform himself on the subject of this experiment, which he declares to be his, that, in the above communication, he names Dr. Warren as the surgeon who performed the operation, which was, in fact, performed by Dr. Hayward.

See testimony of Warren and Hayward.

"Another surgical operation was performed at the Bromfield House, on the 21st of November, the ether again administered by Dr. Morton. Dr. Jackson was then present for the first time, on invitation, but merely as a spectator. On the 2d of January, 1847, an operation was performed in the hospital, when Dr. Jackson attended, and brought with him a bag of oxygen gas to relieve the patient from asphyxia, in case it should supervene. Nothing of the kind occurred, and the gas was not used. This is the first and only act of Dr. Jackson's made known to your committee, which implied that he had any duty to perform in the administration of the ether, or that he rested under any responsibility as to its effects."

Among the papers not heretofore presented, Dr. Jackson has brought before your committee a letter of George T. Dexter, dated December 19, 1851, in which the writer states that Dr. Jackson, in the year 1842, communicated to him his discovery of sulphuric ether as an anæsthetic agent, and spoke of it freely, earnestly, and confidentially, as a means of alleviating much human suffering in surgical operations; that in the winter of 1842, the witness called on Dr. Jackson in his laboratory, who told him he continued his experiments with sulphuric ether, and that it was likely to prove all that he had anticipated, or more.

We hear nothing, however, from any other quarter, of continued experiments by Dr. Jackson, after that of the winter of 1841-'2. Dr. Jackson himself does not profess to have made any.

There is also a letter from D. J. Browne, who says that, in 1845, Dr. Jackson stated to him that he had discovered in the vapor of pure sulphuric ether a preventive of pain in surgical operations, and that he spoke of its effects in such operations with *enthusiasm*. To both these gentlemen he made his communications in confidence, and no written statement of it appears from either of them until December, 1851, four years after the discovery was a subject of public contest, and not until after the scientific papers had been for nearly as long filled with the statements and evidence of the conflicting claimants. Without imputing any wilful aberration from truth to either of the above-named persons, your committee think it but just to remark that their evidence, so far as correctness of memory is concerned, is entitled to much less weight than it would have been if given while the controversy was fresh and rife, and before full publication. There is certainly great danger that a witness who has read with feelings of partiality the mass of evidence exhibited in this controversy, and the conflicting publications of the parties and their friends, will, when he attempts to state a conversation relative to the subject which occurred six or nine years ago, blend with his recollection of it the statements and the evidence which has been four years with it in his mind, and thus cause the one to be colored by or mistaken for the other. For reasons akin to this, the English courts of chancery will not permit a witness to be examined in a cause after publication of the evidence. And, in the opinion of your committee, this evidence weighs but as dust in the balance against the evidence growing out of the acts and omissions of Dr. Jackson, which your committee have already considered. Dr. Jackson may have told these persons all that he wrote to M. Elie de Beaumont on the 13th of November, 1846, but even this your committee think improbable. He may have repeated in his own person the speculations of Dr. Beddoes and Sir Humphrey Davy, connected with the experiments of Dr. Townsend. Dr. Wells did this, and even more. This knowledge of these speculations had

become the common possession of the medical mind, a common highway, in which it was not discovery to travel. And it involves no improbability to suppose that these persons were mistaken as to the *exact statement* that Dr. Jackson made them, and that it is colored and extended in their letters.

The last deposition of Dr. N. C. Keep, laid before the former committee of the House shortly before the coming in of their report, shows what wild freaks feeling and imagination sometimes plays with human memory. He testifies as follows :

“ I became associated in the business and practice of dentistry with Dr. Morton on the 28th day of November, in the year 1846. On the next day we were about to prepare an advertisement for publication, when Dr. Augustus A. Gould called at our rooms. Being pressed with business, I requested him to write the advertisement, with which request he complied. After he had written it, which he did at his own house, he brought it to me, and we read it together. In it the discovery of etherization, without any suggestion having been made by me to that effect, was ascribed in explicit terms to Dr. Charles T. Jackson. Dr. Gould, pointing with his finger to the words in which this ascription was expressed, said to me ‘that will please Jackson.’ I then showed the advertisement to Dr. Morton, and we read it together. He then exclaimed with emphasis, ‘that is good ; I like that ; I’ll take it to the printer.’ Copies of the advertisement were made under the direction of Dr. Morton, and, as I supposed at the time, without alteration, and published by his order in three evening newspapers. On seeing the advertisement in the Evening Traveller, on the evening of the same day, I was greatly surprised to find that the words which ascribed the ether discovery to Dr. Jackson had been struck out. The next morning I called the attention of Dr. Morton to the fact, and asked him why he struck out those words. He hesitated, and seemed not to know what to say, when I said to him : ‘Morton, why do you quarrel with Jackson ? You injure yourself, and injure the cause.’ His reply was : ‘I wouldn’t if he would behave himself. The credit of the discovery belongs to Dr. Jackson ; Jackson shall have the credit of it ; I want to make money out of it.’

“ I stated the foregoing facts to my family on the aforesaid evening, and afterwards to other individuals. I have heretofore declined voluntarily testifying to them, but consider that I have no right, upon a call of such a nature as is now made upon me, to withhold the testimony.

“ N. C. KEEP.

“ BOSTON, February 8, 1849.”

See Dr. Gould, p. 265.

On this the former committee remark :

“When this deposition was received, the chairman of your committee showed it to Dr. Morton, who in a few minutes brought to him a bound book entitled ‘Miscellaneous Notes.’ On the 91st page was a manuscript in the handwriting of Dr. A. A. Gould, written evidently on the outside sheet of a letter addressed to Dr. A. A. G., and post-marked ‘Washington City, D. C., July 9,’ from all which it was most manifest that this was the original draft of the advertisement testified to by Dr. Keep. This paper, contrasted with the evidence of Dr. Keep as the contents of an original draft, fixes in the minds of your committee the just value of this species of evidence. The paper is as follows :

“‘The subscribers, having associated themselves in the business of dental surgery, would respectfully invite their friends to call on them at their rooms, No. 19 Tremont Row ; they confidently believe that the increased facilities which their united experience will afford them of performing operations with elegance and despatch, and the additional advantage of having them performed without pain, by the use of the fluid recently invented by Doctors Jackson and Morton, will not only meet the wishes of their former patients, but secure to them additional patronage.’”

Your committee also examined the original paper, which is the subject of the above deposition, and are satisfied that it has never been altered by erasure or interlineation since it came from the hands of Dr. Gould. The entire narrative, therefore, of Dr. Keep that the paper originally conceded the whole merit of the discovery to Dr. Jackson, the conversation relating to *that*, the alteration by Dr. Morton before publication, the reproof given him by the witness, and Dr. Morton’s reply, still insisting that the credit was due to Dr. Jackson, and that he should have it, is all shown to be false from beginning to end, the mere creation of an excited imagination. Not an error in regard to the force of terms, as is probably the case in the two former depositions considered above, but a statement which, by a fortunate reference made in it to a written paper, is proved to have no foundation whatsoever in truth.

Your committee cannot better present their views of the mass of evidence filed before the former committee of the House than by here embodying in its connexion so much of their report as relates to it. They say :

“The testimony of Don P. Wilson and J. E. Hunt, who were assistants in Dr. Morton’s shop for a few months, commencing in November, 1846, is adduced to impeach the evidence of Leavitt, Spear, and Hayden, by *their* alleged declarations, and the title of Dr. Morton to the discovery, by his declarations. This is a species of testimony against which the books on evidence espe-

cially put us on our guard. It is a sweeping kind of evidence which covers everything; and if the imputed conversation be *private*, or if it be general, (as he "often said," or "always said,") it is often difficult to subject the evidence to the ordinary tests of surrounding circumstances and inherent probability, so as to fix its value. There is enough, however, in these depositions to show that they are of but little weight. It is to be remembered, in the first place, that they are in direct contradiction to the testimony of Whitman, Spear, Leavitt, and Hayden, and they contradict by strong implication the testimony of Mr. Metcalf and Mr. Wightman, the character of all and each of whom is most satisfactorily vouched. The testimony of these two witnesses cannot be true, unless the first four above named entered into a conspiracy to carry a point by perjury; but, as to them, we have examined their evidence—we have tested it by its agreement with surrounding circumstances, and we are satisfied of its truth.

"This of itself would be enough to dispose of the testimony of Wilson and Hunt; but it is proper to look at the inherent character of their evidence.

"Wilson, in the commencement of his deposition, *swears*, by way of recital, that Dr. Charles T. Jackson was the discoverer of the application of ether to produce insensibility to pain in surgical operations; and, among other things, he says, '*Morton first claimed the discovery to be his own*,' in February, 1847. To say nothing of the looseness and total want of caution with which the fact of the discovery is stated—a fact of which Mr. Wilson certainly had no knowledge whatever—he testifies directly against the recorded fact in the second particular, for Dr. Morton did *claim* the discovery as early as September 30, 1846, and his claim was given to the world the next day in the public prints. *His* claim, and *his* alone, was known to the surgeons of the hospital during the month of October, and his public circulars and the numerous answers to them, which he has exhibited to the committee, show that during all that time, and at all times, he claimed the discovery publicly and to the world as his own. The witness goes on to say: 'In the administration of the ether I was guided by and solely relied upon the advice and assurances of Dr. Jackson, received through Morton. *We never dared to follow Morton's own directions*,—and adds that, if they had, the consequences would probably have been fatal and etherization a failure. And further, that he never knew Morton '*to apply it to a patient in the office*. This was from a most apparent fear and shunning of responsibility.'

Mr. Morton's letter to Wells, Oct. 19, 1846, p. 125.
See Dr. Gould, p. 265; Also, Dr. Bigelow and others.

"Now as to the advice and assurances of Dr. Jackson, alleged to have been received from time to time through Dr. Morton, we have no reason to suppose that any such repeated intercourse and communication took place during that time, and we have no evi-

gence of the actual fact of any such meeting and instructions. On the contrary, there is evidence of unkind feelings existing on Dr. Jackson's part towards Dr. Morton; and in the opinion of your committee the testimony of Dr. Keep *indirectly* contradicts the testimony of Wilson on that point, and *directly* upon each of the other points last named. Dr. Keep's object and the tendency of his evidence is to depreciate Dr. Morton; but for faults the very reverse of those with which he is charged by Wilson, namely, a '*rash recklessness*,' instead of '*a most manifest fear of responsibility*,' in administering the ether; and he evidently is impressed with the belief, and designs to let it be known, that the success of etherization depended upon his skill and prudence. He says, '*it was his (Morton's) practice during that time to administer the ether without any adequate provision for the admission of atmospheric air; and whenever operations were performed by other persons in the office, and under his supervision, he directed the application in the same way, in consequence of which many of the operations were unsuccessful, and great distress and suffering were induced.*' Dr. Keep then states that he made ample provision for the admission of atmospheric air, and advised the assistants to do the same thing; but '*they being influenced by his (Morton's) directions and known wishes, did not at all times follow my advice.*' Not a word is said by Dr. Keep of any advice or directions coming from Dr. Jackson, which, if it had actually occurred, must have been known to him, and would have formed an important item in the current incidents of the time. The evidence of these two witnesses stand thus: They were in the office of Dr. Morton, during the same '*thirty days*,' Keep the superior, Wilson the assistant. Keep says Dr. Morton was in the habit of administering the ether in a particular manner, and that he was *rash and reckless*. Wilson says that he never administered it at all, and that he was *timid* and shrank from responsibility. But the surgeons of the hospital agree with neither one nor the other, but show that he repeatedly administered it in the hospital *himself*, to their entire satisfaction, and with entire success. Wilson says the assistants in the office would not follow the directions of Dr. Morton, but relied upon such as were brought from Dr. Jackson. Keep says nothing about instructions from Dr. Jackson, but that the assistants in the office were influenced by the directions and known wishes of Dr. Morton, so that his salutary advice and remonstrances were often of no avail. Wilson says Dr. Morton explained to him, an assistant in his office, very fully all the particulars of the discovery and patent; but to Dr. Keep, his partner, he extended no such confidence. We leave these two depositions to be viewed in their strong contrast; and as to the testimony of Don P. Wilson, considering its inherent improbability, the suspicious nature of the species of testimony to which it

See testimony of the surgeons.

belongs, the manner in which it is contradicted directly and indirectly by the evidence of Dr. Keep; and when we further consider that it is directly opposed to the evidence of Whitman, Spear, Leavitt, and Dr. Hayden, and indirectly to that of Metcalf and Wightman; and that it is also in direct conflict with numerous public printed cards and notices of the day, we feel that we cannot give it the slightest weight or consideration.

"The testimony of John E. Hunt is subject to the same objections with those of Don P. Wilson, and other objections which your committee will now proceed to notice. In order to bring out a declaration on the part of Spear, that he had never taken the ether, he represents him as taking it one evening, and in the excitement produced by it, seizing upon a countryman present, and handling him roughly. The apology which Spear makes to the countryman is, '*this was the first time he had ever taken the ether;*' not that it was the first time ether so affected him, or that the rudeness was committed under the influence of ether, but that it was the first time he had ever taken the ether—a fact which had little to do with the act of rudeness, and was a most irrelevant apology. But the inquiry thereupon made by Mr. Hunt is most remarkably inconsequent; he having heard Spear say that it was the first time he had ever taken ether, asks him if it 'ever affected him in the same way before.' Now, if he had been pressing Spear with a cross examination, in order to entrap him in some important admission, the inquiry might, perhaps, have been made; but it was *then* a matter of no importance whatever whether Spear had breathed the vapor of ether or not, and it becomes in the highest degree improbable that both branches of the conversation, so inconsistent with each other, actually occurred; and as the statement contradicts the testimony of so many respectable witnesses, and is in itself improbable, your committee do not feel bound to give it credence. Again: in a walk with Spear, Hunt gets from him a full disclosure of the discovery, and a statement that it belonged to Dr. Jackson. According to this, Dr. Morton got the requisite information and instructions from Dr. Jackson; came home; *tried it on a woman, and it worked first-rate*; and he had since then continued to use it under the directions of Dr. Jackson. The evidence shows that Spear well knew that the *experiment* was not tried on a *woman*, but on a *man*, whose certificate was read next day by hundreds in the city of Boston. But the witness evidently took this part of the story from the narrative of Don P. Wilson (whose deposition was taken on the same day) about the refractory female patient named in the conversation with Dr. Jackson on the 30th of September, who was to be cheated with atmospheric air, administered from a gas-bag.

"From among the thousands with whom Dr. Morton communicated, touching this discovery, during the winter of 1846 and

1847, some six or seven, with whom he had personal controversies, testify to his admissions that he was not the discoverer. They differ as to the degrees of directness and fullness with which he opened the matter to them, but it will be found, as your committee believe, to be a rule in this case, having no exception, that the more violent the hostility of the individual, the more fiercely he assailed Dr. Morton's patent, the more free Morton became in his communication, and the more fully did he unbosom himself; and his statements always went directly to defeat his own claims, and support the defence of the opponent to whom he made it. For example, H. S. Payne says 'that, in the early part of December, 1846, he commenced applying the vapor of ether to produce insensibility to pain in surgical operations. This was after I had heard of the discovery of the preparation by Charles T. Jackson, of the city of Boston.' He then states that Dr. Clarke purchased of Dr. Morton a right, under the patent, for Rensselaer and several adjoining counties, who sold to Dr. Bordell; and Dr. Payne was notified by Dr. Blake, as the agent of Dr. Morton, to abandon the use of ether in his practice. After failing in an attempt at negotiation with Dr. Bordell, he went to Boston and had an interview with Dr. Morton, who not once only, but repeatedly, declared that Dr. Jackson was the *sole discoverer*; 'that all the knowledge he possessed in relation to its properties and application came from Dr. Jackson, and that he never had any idea of applying sulphuric ether, or that sulphuric ether could be applied for the aforesaid purposes, until Dr. Jackson had suggested it to him, and had given him full instructions.' This most frank communication raises at once a difficulty about the patent, which is obviously void, if that statement be true; and Dr. Morton attempts to remove it by saying 'that he had been very fortunate in affecting an arrangement with Dr. Jackson before any one else had the opportunity, and that he was the first man to whom Dr. Jackson communicated the discovery.' And he adds: 'Dr. Morton again and again said that he was not in any way the *discoverer of the new application of ether, but that the idea had been first communicated to him by Dr. Jackson, who was its discoverer, and that his (Dr. Morton's) interest in the patent was merely a purchased one; and, moreover, that he was very lucky in anticipating all other persons by first receiving so precious a discovery from the lips of Dr. Jackson.*'

"After seeing the fullness and unreserved character of this important conversation, and the apparent earnestness with which Dr. Morton attempts to impress the fact that he had no participation whatever in the discovery, not satisfied with suffering it to escape him inadvertently or even stating it once, but repeating it 'again' and 'again,' as if he were anxious to impress it, one could not but be surprised to know that Dr. Payne, before this conversation,

had *pirated* this discovery; had set up for himself; bade defiance to Dr. Morton and his assignees; and on his return home, published a card, in which he by no means denies that Dr. Morton discovered the *thing* which he and his assignees are using, but averring that his (Dr. Payne's) *anodyne vapor*, which in his affidavit he admits to be sulphuric ether, 'is not the invention of the great Dr. Morton, but an entirely superior article, and all persons must beware how they infringe on his rights.' And the more especially is it surprising when we reflect that this state of facts, which Dr. Morton took such unusual pains to repeat and to impress upon this his most determined opponent, would, if true, render the patent wholly void in his hands, and put his discovery entirely in the power of Dr. Payne, and all others who should see fit to avail themselves of it. There can be no absolute proof that Dr. Morton did not make these statements; but it is clear that it was against his interest to make them; and there is also full proof that they are not true, and that they are in direct opposition to his numerous printed and published statements. They are not true; for, besides the six witnesses who testify directly or indirectly to the discovery in its inception and progress, it distinctly conflicts with the conversation of the parties, and their mutual understanding, on the 26th and 27th of October, as testified to by R. H. Eddy. It is in direct conflict with the claim promulgated by Dr. Morton, and received and accredited by the scientific gentlemen in the medical hospital, who performed the operations testing the efficacy of the discovery.

" Dr. Warren says :

" " BOSTON, *January 6, 1847.*

" " I hereby declare and certify, to the best of my knowledge and recollection, that I never heard of the use of sulphuric ether by inhalation, as a means of preventing the pains in surgical operations, until it was suggested by *Dr. W. T. G. Morton*, in the latter part of October, 1846."

" And alike opposed to all the numerous printed circulars which Dr. Morton and his agents had distributed and were then distributing in every part of the United States. It appears that prior to this date, Dr. Morton's attention had been called to an opposing claim to the discovery, and to the experiments at the hospital, and he had taken a decided public stand against them, as witness his circular, published the 20th day of November, 1846, and the note thereto attached :

“ ‘ *Dental operations without pain.*

“ ‘ *Dr. Morton has made a great improvement in dental and surgical operations, for which letters patent have been granted by the Government of the United States, and to secure which measures have been taken in foreign nations.*

“ ‘ *Having completed the necessary preparations for the purpose, and greatly enlarged his establishment, Dr. Morton respectfully announces to his friends and the public that he is now ready to afford every accommodation to persons requiring dental operations.*

“ ‘ *His assistants and apartments are so numerous, and his entire arrangements on so superior a scale, that immediate and the best attention can be given to every case, and in every branch of his profession.*

“ ‘ *The success of this improvement has exceeded the most sanguine expectations, not only of himself and patients, but of the very skilful and distinguished surgeons who have performed operations with it at the Massachusetts General Hospital, and other places in Boston, or witnessed its use at his office. Rooms, No. 19 Tremont row.*

“ ‘ *Boston November 20, 1846.*

“ ‘ * * * *Inasmuch as one or two persons have presumed to advertise my improvement as their own, and even issued notices to the effect that the applications of it at the hospital were made by them, and that the certificates of its efficacy and value were given to them by the SURGEONS OF THAT INSTITUTION, I feel it my duty to warn the public against such false and unwarrantable statements; and at the same time to caution all persons against making, aiding, or abetting in any infringement of my rights, if they would avoid the trouble and cost of prosecutions and damages at law.*’

“ *And your committee do not think it credible that Dr. Morton, resting his claims to the discovery on the grounds which he did—having a most decided public opinion at home in his favor as the discoverer—having freshly tasted of the intoxicating draught of fame—and recently, in the public papers and in circulars, asserted his authorship of the discovery and defied his rivals—they do not think it credible that he should seize the first occasion which offered, in conversation with a most determined opponent, to declare the falsehood of all that he had written, published and claimed—to disclaim the honor which the world so generally and freely accorded to him—confess away all his pecuniary rights under the patent—and even support his surrender, disclaimer and sacrifice by a self-debasing assertion which he well knew was false. The improbability is too strong to allow it credit.*

"But Dr. Payne says, that in the early part of December, 1846, he commenced his operations with sulphuric ether, and that this was after he had heard of the discovery of Dr. Charles T. Jackson, of Boston. How he heard of the discovery of Dr. Jackson he does not say; surely not by the information of the scientific men of Boston, for they attributed the discovery to Dr. Morton; not by the public prints, cards, and advertisement, for the name of Dr. Morton alone appeared there; and he says, in conclusion, that *he was very much astonished* in learning, some time after his visit to Boston, that Dr. Morton 'asserted any claim whatever' to the discovery, and this, after the publication and circulation of the notices, cards and circulars of Dr. Morton, and after the witness had long been engaged in an embittered contest with Morton and his assignees, and the publication of his (Dr. Payne's) card.*

"Dr. Allen Clarke, who also testifies to admissions by Dr. Morton, but much less strongly than Dr. Payne, and whose statement may well be the result of a misunderstanding, made the more decided by hostility to Dr. Morton, and a desire to defeat his patent, was the purchaser of a right, for which he gave his note for \$350. He at length determined not to pay the note, but to join in contesting the patent, and he expresses the opinion, that by keeping up the controversy for one year, the patent would be broken down. Dr. Blaisdell says 'Clarke would not pay you, for he could get the use of the letheon for one year before you could get the license from them, and by that time they could ruin the sale of it there,' and he might well have added, and with it the discoverer; a very common fortune to men who render the most important services to their race.

"Time, and the reasonable limits of a report, will not allow your committee to dwell upon the few remaining items of kindred testimony. The weight and strength of them have been considered; and the residue, like them, are composed of alleged statements by Dr. Morton to persons with whom he then had, or has since had, personal controversies touching his discovery, and they are all in contradiction to the claims which Dr. Morton daily promulgated in print to the world. Those printed papers are, as your committee conceive, the best evidence of what Dr. Morton all that time claimed, and what he conceded; they are

* "NOTICE.—Dr. Payne has just returned from Boston, and has only time now to give notice to his friends and the public, that in a day or two he will be able to show to the public that the anodyne vapour which he has used is not the invention of the great Dr. Morton, but an entirely superior article, and *that he shall continue to use it*. And all persons must beware how they infringe on his rights." Extract of a letter of Mr. E. Filley, attorney of Dr. A. Clarke, of Lansingburg, New York, to Dr. Morton's attorney of Boston: "As one Dr. H. J. Payne, dentist of the city of Troy, persists in the use of the apparatus and gas, and proclaims defiance to Dr. Morton and any of his assigns, Dr. Clark is completely thwarted in his enjoyment of the rights secured to him by Dr. Morton. The conduct of Dr. Payne is particularly annoying."

of the time and of the transaction; they do not admit of misstatement, misconstruction, or falsification; they are of unvarying and exact memory; and they speak the language of undoubted truth as to the claims, though not as to the rights of the author. His claims, contemporaneous with these papers, are what these witnesses attack. His *rights* we have already considered; and, as to the evidence of his *claims*, that which he insisted and said was his, the published papers stand against the testimony of these witnesses, as written or printed evidence against parol. His alleged confessions, made under the most improbable circumstances, are in direct contradiction to his printed circulars, daily and contemporaneously promulgated to the world. If, then, these alleged parol admissions stood against the printed and published papers, without anything beside to add strength to either, we could not, in our conscience, in weighing the conduct of men by rational probabilities, hesitate to give the decided preponderance to the printed over the parol evidence. But the parol evidence runs counter to all the leading facts in the case heretofore considered and established, in the opinion of your committee, by the most indubitable proof, while the printed circulars and notices entirely agree with them, and make with them one uniform and consistent whole. The objects of the parties, their claims, their efforts, their purposes appear the same throughout. The deposition of A. Blaisdell is, however, worthy of especial comment. At the time he professes to have had the conversation in which Dr. Morton accords all the merit of the discovery to Dr. Jackson, he was the agent of Dr. Morton, spreading his circulars throughout the land; had taken care to send one of them to each and every surgeon dentist in New York; and yet now declares that he was especially charged with the information which he takes care to inculcate, that these circulars were all false in the most material point, and that the patent which he is selling is void by reason of that falsehood.* He was at the same time in habits of almost daily correspondence with Dr. Morton; and the difficulties which he met with occurred while he was absent, and it would most naturally have suggested itself to him to communicate them to Dr. Morton by letter, and in that way get his assent to obviate them by declaring Dr. Jackson the *sole*

* Extract from A. Blaisdell's letter to Dr. Morton, dated New York, December 29, 1846.—“I am sending one of your circulars to every dentist in New York.”

New York, December 31, 1846.—“I have sent a circular to every dentist in New York city, and written on the cover where I am to be found.”

In a letter from Pittsburg, dated February 1, 1847, he writes: “I gave him a few circulars to give his neighbours.” Remarks to the same effect occur in other letters.

October 26, 1846.—“Dr. Morton has discovered a compound, by inhaling which a person is thrown into a sound sleep, and rendered insensible to pain,” &c.

discoverer. But he does not do so; if he had, his letter and Dr. Morton's answer would have been in writing; and, then, if there were truth in the statement of those alleged admissions, there would have been one item of written evidence to support them. But this is wholly wanting. Blaisdell professes to have waited till his return to Boston, and then to have held a private conversation with Dr. Morton, who at once and eagerly admitted away his *whole claim*, both to money and reputation.

"It is remarkable that, in more than three months, during all which thime these witnesses say Dr. Morton conceded to Dr. Jackson the merit of being the 'sole discoverer,' during all which time he was daily writing and almost daily publishing, there is not produced one line written by Dr. Morton, or written to him, countenancing the idea; nor is there one act of his which looks to such admission. A written admission, or an ambiguous paragraph in writing, which could be fairly construed into an admission, or a letter written *to him* during that time, which could be reasonably construed to refer to such admission, would be tenfold the value of all the parol testimony now presented, of those admissions. Dr. Morton has shown to the committee several bound volumes of letters addressed to him upon this subject, all of which recognize him as the discoverer. Viewing these statements in this point of light, comparing them with the printed and published papers,* in which Dr. Morton contemporaneously and continually asserted his claims to the discovery, and finding them opposed, as they are, to the well-settled facts of the case already considered, they weigh, in our opinion, as dust in the balance, and in no wise affect the well settled facts of the case."†

* "*To the public*.—Dr. Morton, surgeon dentist, No. 19 Tremont row, Boston, hereby gives public notice that letters patent have been granted him by the government of the United States for *his improvement*, whereby pain may be prevented in dental and surgical operations."—*Boston Evening Transcript*, November 20, 1846.

† "*Important information for the public at large*.—I do hereby give this public notice, and warn all persons against using *my invention*." "I am particularly desirous that *my invention* should not be abused or intrusted to ignorant or improper hands, or applied to nefarious purposes." "New York Express, Baltimore Patriot, United States (Philadelphia) Gazette, will please insert the above twice every week for four weeks, and send their bills to this office." *In same paper December 4, 1846.*

† In answer to a communication by Dr. J. F. Flagg, in which he threatens to take possession of the invention, and in which he attributes the credit of it, if there was any, to Dr. C. T. Jackson, Dr. Morton says: "Unless he can show—and I do not know anybody else that can—that (to use his own words) it has been known and published for some years that the vapor of sulphuric ether would produce the visible effects now said to be discovered, then the invention is original."—*Boston Evening Transcript*, December 10, 1846.

In a letter from Dr. Wells (Boston Post, April, 1847,) he makes the following extract from Dr. Morton's letter to him in the early part of October, 1846: "The letter which is thus introduced with my signature, was written in answer to one which I received from Dr. Morton, *who represened to me that he had discovered a compound*."

It may not be irrelevant to remark that there is not, in all this mass of depositions and letters, any contemporaneous written paper supporting Dr. Jackson's claim to the discovery, or impugning Dr. Morton's—all is parol. Declarations made by Dr. Jackson asserting the claim, and declarations made by Dr. Morton, even in the heat of the controversy, to his most violent enemies, abandoning his claims and surrendering them to Dr. Jackson. But no written paper sustaining either. And where in two instances the statement of Dr. Jackson touches a paper written or signed by himself, he repudiates them as false, and as obtained by circumvention and fraud; because, if true, they disprove his claim. And in the instances in which the testimony of his witnesses, tending the admissions and abandonment of Dr. Morton, can be directly tested by written papers, they are thereby in every instance proved to be false. Your committee consider that species of parol evidence, made up of alleged declarations of the parties merely, unsupported by a single written paper, but contradicted by every thing in writing which they touch, entitled to no weight whatever, against the well known and fully admitted acts of the parties in this case.

Of Dr. Jackson's acts, while the surgeons of the principal curative institution in New England—the Massachusetts General Hospital—were applying the critical test to a discovery which he now claims as his own, the committee have before them new evidence in the following letter, upon which they forbear to comment further than to remark how decidedly it confirms the conclusions at which they have already arrived.

Dr. Henry J. Bigelow, Professor in Harvard University, and Surgeon in the Massachusetts General Hospital, in answer to a letter of the Hon. Geo. T. Davis, says:

Boston, *February 3, 1852.*

DEAR SIR: I beg to acknowledge the receipt of your letter, dated January 21, addressed to Dr. Hayward, Dr. Townsend, and myself, and containing the following extract from a written remonstrance of Dr. Charles T. Jackson, which has been laid before a committee of the House of Representatives:

"The cause of asphyxia, so commonly produced in the early administration of ether at the Massachusetts General Hospital, I traced directly to the employment of those valved inhalers. In the weakened state of respiratory action, under anæsthetic agents, the valves are not raised in attempts to breathe, and the patient is drowned by the pure ether or chloroform vapor. On the removal of the valve by my directions, asphyxia at once ceased to occur at the hospital, and I had no occasion to employ the oxy-

gen gas to revive the patients, as I was requested to do by one of the eminent surgeons of that institution; for no asphyxia happened after my advice was followed, to throw aside the inhalers and use a sponge."

In detailing as you request "a precise recollection of facts upon these points so far as they fell under my personal observation," I may say that, to the best of my knowledge, being very familiar with those early experiments at the hospital, generally administering the ether myself:

1st. There was no more asphyxia then, from ether, than there is now.

2d. There was certainly no period at which asphyxia at once ceased to occur at the hospital.

3d. This alleged asphyxia had little or no connexion with any valves.

4th. I never heard that any valves were suppressed, nor that Dr. Jackson suppressed them.

5th. Asphyxia, as it then occurred, was of no great importance, and was dependent upon the same causes which sometimes produce it now.

6th. When Dr. Jackson brought oxygen gas to the hospital, nobody required it; it was not used, nor has it been, to my knowledge, anywhere since used in this connexion.

In reply to your inquiry how far Dr. Jackson personally superintended the early administration of ether at the hospital, I answer *not at all*. He not only exercised no superintendence at the hospital, assumed no responsibility, but actually did not come there for more than two months after ether was regularly in use in that institution.*

I will venture to allude to another point, which is of no importance to anybody but myself. Yet it directly concerns me, and I should be glad of an opportunity to refer to it, in order to refute certain statements of Dr. Jackson. In a part of his "remonstrance," Dr. Jackson uses, as I am informed, the following words:

"The few medical gentlemen, or young surgeons, connected with the hospital, who have not fully recognized my rights in this discovery, are, I lament to say it, anxious to obtain a larger share of the glory than rightfully belongs to them; and one of them†

"Dr. H. J. Bigelow very distinctly claims the honor of being the first to promulgate this great discovery, the first to make the profession acquainted with it, he having stealthily published my discovery before I was ready to lay it before the public, and while

* See Dr. Townsend, p. 355.

† A part of the argument here is a little loose and is omitted.

I was temporarily absent from the city, by reading an account of it before two societies of which I was, and am now, a member—the Boston Society for Medical Improvement and the American Academy of Arts and Sciences—and afterwards published his paper in the Boston Medical and Surgical Journal, against my solemn protest and denunciation of it as false, unjust, and quackish. In that paper, a copy of the journal containing which I send to you, please observe that the nature of the agent used is carefully concealed, and hence it is a mere quack advertisement.”

The paper above alluded to was the first paper upon the newly discovered effects of ether. It was intended by Dr. Morton, and did happen to be the instrument by which the discovery was announced to the profession and the world at large, both in this country, where it was attacked by the incredulous, and in Europe, where it was widely reprinted.

This paper,* to quote a contemporary publication, was intended to be a narration of physiological facts observed by myself, with a few concluding remarks connected with the patent right. It was published more than five years ago, and those objections of Dr. Jackson's are now to me altogether new, and I believe they are also new to everybody else.

It will only be necessary to state in reply: 1st. That Dr. Jackson could not at that time, for the want of the requisite facts, have himself written this physiological paper. In fact that nothing but his present assertion shows that he had either the intention or desire to do it, and that there was no reason whatever either to consult him either in reading or writing the paper, or to suppose that he wished to be consulted.

2d. That he read the paper before it was printed, and assented to its publication in print.

1. One thing is very striking, Dr. Jackson never saw a single surgical or dental operation with ether until long after it was a confirmed discovery, and until weeks, if not months, after this paper was printed. As this paper was an account of the new physiological effects of ether, observed in Dr. Morton's and other experiments, Dr. Jackson, who saw none of these experiments, would have been unable to have made any communication to a society upon this point, even if he had wished to, for the simple reason that for two months he had not the requisite materials, but nobody will now believe that he wished to make any such communication; he had, according to his own statement, kept the matter from the public for years, and we may reasonably infer that he would have done so till this day, if the disclosure had been left to him. And it is well known that he kept aloof for a long time from any public connexion with Dr. Morton or

* Boston Medical and Surgical Journal, December, 1846.

with ether, while physiological papers were written by the dozen by other people, without any objection on his part.

I should have been certainly most happy to have consulted Dr. Jackson, had I any idea that, as he now pretends, he desired it; but even if I had done so, it is plain that he could have given me no information upon the subject which was under investigation, for he had no control whatever over Dr. Morton's experiments—he had never seen them, nor had he any authority to make use of them, if he had seen them. The paper alluded to was not designed to promulgate old theory nor the suspicions of two years' standing, which Dr. Jackson claims, but new facts, and for these I applied to Dr. Morton. *He instituted the experiments; he had their sole control; he took the responsibility of them, while Dr. Jackson kept out of the way.*

The application of ether for anæsthetic purposes, was at that time supposed by everybody to be wholly in the hands of Dr. Morton. Dr. Morton, through the intervention of a friend of his, who was also a friend of my own, allowed me to take notes of these experiments for publication, and as far as I know, I was the first person not connected with Dr. Morton's office, except Dr. Gould, who saw these experiments.

As to Dr. Jackson's knowledge of the cases at the hospital, which are also detailed in my paper, Dr. Jackson did not come there till January 2, of the year after they occurred.

2. When this paper was to be printed, a new element was to be introduced into it, at the request of Dr. Morton; the question of patent, a delicate subject already mooted by the interested parties, and about which it was obviously proper that Dr. Jackson, who was interested in it, should be consulted. Though he might not care who prosecuted or announced the physiological experiments, the matter of patent was plainly a different question.

I therefore sought an interview with Dr. Jackson, at his house, several times. Failing to find him, I left for him a verbal request that he would be present at a final conference at the house of Dr. Gould, where the paper was to be finally considered and adjusted before being printed; especially the few closing paragraphs, then for the first time appended to it, and relating to the question of patent.

During this conference, the door was flung open, and Dr. Jackson entered, declaiming vociferously. He was quietly asked what might be the occasion of his excitement; and was requested to read the paper then upon the table, and under discussion, and to see whether he did or did not approve it. Dr. Jackson examined the paper, and finding it to be of a strictly physiological character, touching very lightly the questions of patent and of discovery, he changed his tone, ceased to object, requested one or more alterations of the part bearing upon these latter questions, especially

the suppression of a paper relating to the electric telegraph, *and assented to the publication of the paper.*

This took place at the house of Dr. Gould, in Tremont street, on Sunday evening, three days before the publication referred to, and in the presence of Dr. Gould, Mr. Eddy, and Dr. Morton. Dr. Jackson assented to the publication of the paper as it then stood, and the conference was amicably terminated.

This statement, together with the accompanying letters of Dr. Gould and Mr. Eddy, stating their recollection of the facts, may be compared with the above extract from Dr. Jackson's remonstrance.

I have the honor to be, very respectfully, your obedient servant,
HENRY J. BIGELOW.

Dr. Gould's letter referred to in the above :

Boston, *July 14, 1852.*

Dr. H. J. BIGELOW :

DEAR SIR : In answer to your inquiry respecting my recollection of a certain interview at my house between yourself and Dr. C. T. Jackson, and of the impression I received at the time, I would reply that I distinctly recollect the interview alluded to. The article you were about to publish was submitted to Dr. Jackson, and the latter part, at least, where alone any objectionable expressions were supposed to lie, was read by him, after which I received no other impressions than that he found nothing to object to. One passage was excluded, which it was thought might have some bearing on the question of discovery, and I think at his suggestion.

Yours truly,

AUGUSTUS A. GOULD.

Mr. Eddy's letter referred to in Dr. Bigelow's letter :

Boston, *July 12, 1852.*

Dr. H. J. BIGELOW :

DEAR SIR : In reply to your request to me to state what I recollect in relation to a conference you had with Dr. C. T. Jackson one Sunday evening at the house of Dr. A. A. Gould, and on the subject of a paper you was preparing for publication in the Boston Medical Journal, which paper was subsequently, within a few days after, published, and treated of the recent discovery of the application of ether to annul pain in surgical operations, I would remark that I was present at such interview, that the article you had proposed was exhibited to Dr. Jackson, who carefully examined it, and after suggesting, or there having been suggested, some trifling changes in it, he expressed his entire

satisfaction with it, and willingness that it should be published. I afterwards read the article as it appeared in the Medical Journal, and so far as my recollection serves me, I perceived nothing in it differing from what it was decided to be satisfactory to Dr. Jackson on the said evening.

Yours respectfully,

R. H. EDDY.

Dr. Jackson, in his letter to Baron Von Humboldt, says :

"I at once appealed to the public, destroyed the bond given me by Mr. Morton, and made the use of ether in surgical operations free to all mankind."

The transaction of *destroying the bond* is somewhat ludicrous.

On the morning of the 26th May, 1847, more than five months after the patent had been taken out, after it had for some time become unavailable, and Dr. Morton had lost a good deal of money by it, Dr. Gay called at Dr. Morton's office, with a young gentleman in his company, and somewhat dramatically cancelled the bond. This was the bond that secured to Dr. Jackson ten per cent. on the net profits of the American patent. On the same day, the anniversary of the Massachusetts Medical Society took place, and at the dinner, in the afternoon, Dr. Jackson made a speech, in which he claimed to have been entirely disinterested in his connection with the discovery, and said he had destroyed the bond. He did not say that he had destroyed it that morning, just in season for the speech ; but we are permitted to infer that it was destroyed at a time when it had some value.

The inconsistency between these late claims for disinterestedness on the part of Dr. Jackson, and his unremitted efforts to obtain the utmost possible pecuniary advantage from the discovery, so long as there was any chance of its being profitable, is apparent to all.

So long as the discovery was under test, and its result was uncertain, Dr. Jackson is unseen and unheard. When it became evident, from the two experiments at the hospital, that the discovery was of value, at the close of October, Dr. Jackson first appears, and then only for the purpose of claiming compensation of Dr. Morton for professional advice. He accepts five hundred dollars. His friend obtains for him ten per cent. of the net profits of the American patent. He next refuses to sign the European papers without receiving ten per cent. on the foreign patents. From this he rises to twenty per cent., and on the 28th of January he claims "twenty-five per cent., both at home and abroad, as the least that in justice" can be offered him ; and his counsel, of course with his sanction, speaks of the patent as one which, "if sustained, promises to give to all parties large sums of money for their united co-operation." He opens negotiations with Dr. Mor-

ton, through Mr. Hayes, for obtaining a joint patent in France, by the instrumentality of M. de Beaumont, whose letters to Dr. Jackson on this point were shown to Dr. Morton. After all hope of pecuniary benefit from the patent is at an end, he cancels the bond, and, with a strange forgetfulness of all his previous conduct, comes out in the character of one who disdains pecuniary compensation. Not only so, but he seems determined that Dr. Morton shall receive no compensation. On the 20th November, 1847, the physicians and surgeons of the hospital (with one exception) prepared a memorial to Congress, setting forth the importance of this discovery, and praying the government to make a payment "to those persons who shall be found, on investigation, to merit compensation," on condition that the patent be given up. Knowing that this would result in an official inquiry into the discovery, Dr. Morton promoted it to the utmost of his power. Dr. Jackson, on the other hand, remonstrated against it, on the professed ground that he would submit his claims to no tribunal, and that, as the sole discoverer, he wished no reward beyond the gratitude of mankind.

It is well known that an effort was made in London, by subscription, for a donation to the discoverer of the effects of ether. By letters to gentlemen in this country from friends in London, we are informed that a sum, estimated at £10,000, was considered as secured. But the controversy and doubt created by Dr. Jackson's communications to the French Academy caused it to be abandoned.

Dr. Jackson speaks of Dr. Morton in terms of great bitterness. He assails his private character, declaring that it is infamous, and that in knowledge and intellect he is an ignoramus and an imbecile, not only not possessed of science, but mentally incapable of acquiring it; and that, while administering his anæsthetic vapor to the patients at the hospital, he was offensive to the faculty by reason of ignorance and quackery. Much of his letter to Baron Von Humboldt, which he has filed before your committee as his answer, for this reason would not be suffered to remain on the files of the court of chancery, but would be stricken out for scandal and impertinence. Your committee utterly refused, as stated above, to receive evidence of general character, or of particular accusation or defence for or against either of the parties, not relevant to the issue. But, as the charges advanced by Dr. Jackson against Dr. Morton, in the letter above, must remain on the files of the House and be printed with the proceedings of the committee, they deem it but just to say that these charges are not only not supported by, but are utterly inconsistent with, the current proofs in this case. And they think it proper to refer to the letters, herewith published, of Drs. Warren, Hayward, Bigelow, and Townsend, surgeons of the Massachusetts General Hospital, for conclusive evidence of his capability to conduct the experi-

ments; to the following testimonial by the trustees of that institution, for the estimation in which they and the public generally held his services; to the certificates and diploma for medical qualifications on pages 19, 20, and to the letters from two of the Ex-Governors of his State and the Mayor of the city in which he resides, for the estimation in which he is held at home :

“BOSTON, May 12, 1848.

“DEAR SIR : At a meeting of the Board of Trustees of the Massachusetts General Hospital, a few weeks since, it was informally suggested that a limited subscription of one thousand dollars shall be raised for your benefit, in acknowledgment of your services in the late ether discovery ; no one to be asked to subscribe more than ten dollars. We consented to act as a committee to receive and apply the proceeds of this subscription. The proposed sum having been obtained, we have now the pleasure of transmitting it to you. We also enclose the subscription book in a casket which accompanies this note. Among its signatures you will find the names of not a few of those most distinguished among us for worth and intelligence ; and it may be remarked, that it is signed by every member of the Board of Trustees.

“You will, we are sure, highly value this *first* testimonial, slight as it is, of the gratitude of your fellow-citizens. That you may hereafter receive an adequate national reward is the sincere wish of your obedient servants,

“SAMUEL FROTHINGHAM,

“THOMAS B. CURTIS.

“To Dr. Wm. T. G. MORTON.”

The box accompanying this note had upon it the following inscription: in front, “Testimonial in honor of the Ether Discovery of Sept. 30, 1846 ;” and on the lid, “This box, containing one thousand dollars, is presented to William Thomas Green Morton by the members of the Board of Trustees of the Massachusetts General Hospital and other citizens of Boston, May 8, 1848.”

Letter from Governor Briggs.

“COUNCIL CHAMBER, BOSTON, Jan. 12, 1849.

“DEAR CORWIN : Allow me to introduce to your acquaintance Dr. Morton, of this city, whose name the world knows as the discoverer of the application of ether to alleviate pain. An application to Congress for some compensation for the discovery is to be made. May I ask you, for the doctor, who thus far, though

he has relieved thousands of others from suffering, has had nothing but suffering himself as his reward, to look at his case, and if you find it has merits, give it your support.

"Sincerely and truly yours,

"GEO. N. BRIGGS.

"Hon. THOS. CORWIN."

Letter from Governor Morton.

"BOSTON, January 12, 1849.

"DEAR SIR: I am happy to have the opportunity of presenting to your acquaintance Dr. W. T. G. Morton, of this city. Dr. M., who by reputation is doubtless known to you, has the distinction to have his name identified with one of the most important discoveries of modern times—the application of ether as an agent for producing insensibility to pain in surgical operations. His object, as I understand, in visiting Washington at this time is to endeavor to procure from Congress some recognition of the value of his discovery. I beg leave to recommend him to your kind attention.

"I am, very respectfully, your friend and servant,

MARCUS MORTON.

"To Hon. THOS. H. BENTON."

Letter from Mayor Bigelow.

"BOSTON, December 9, 1848.

"SIR: I avail myself of the honor which I had of making your acquaintance last season, during your visit to Boston, to introduce to you my friend, Dr. Morton, the discoverer of the effect of ether in producing insensibility to pain, a discovery which has placed him in the front rank of the benefactors of the human race. He visits Washington in the hope of obtaining some recognition on the part of Congress of the value of his discovery, and has already secured the favorable consideration of some of the members. Your assistance in the matter would be in keeping with your well known and enlightened philanthropy, and would be gratefully appreciated.

"I have the honor to be, very respectfully, your obedient servant,

"JOHN P. BIGELOW.

"Hon. ISAAC E. HOLMES."

The claim in behalf of Dr. Wells rests on his experiments with nitrous oxide, referred to by your committee in the early part of their report. He had the merit of attempting to carry out practically the idea suggested by Sir Humphrey Davy, of rendering, by its influence, a patient insensible to pain in a surgical operation. He has also undoubtedly the merit of having contributed something in directing the mind of Dr. Morton to the subject, and thus aided in conferring this great boon upon mankind. Originally he did not claim for himself the honor of the discovery, but merely of the attempt, which he admitted to have been fruitless.

The letter of Dr. Morton announcing his discovery and the reply of Dr. Wells, together with the letter of R. H. Eddy, dated February 17, 1847, prove this. They are as follows:

“ BOSTON, *October 19, 1846.*

“FRIEND WELLS—*Dear Sir:* I write to inform you that I have discovered a preparation, by inhaling which, a person is thrown into a sound sleep. The time required to produce sleep is only a few moments, and the time in which persons remain asleep can be regulated at pleasure. While in this state the severest surgical or dental operations may be performed, the patient not experiencing the slightest pain. I have perfected it, and am now about sending out agents to dispose of the right to use it. I will dispose of a right to an individual to use it in his own practice alone, or for a town, county, or State. My object in writing to you is to know if you would not like to visit New York and other cities, and dispose of rights upon shares. I have used the compound in more than one hundred and sixty cases in extracting teeth, and I have been invited to administer to patients in the Massachusetts General Hospital, and have succeeded in every case.

“The Professors, Warren and Hayward, have given me written certificates to this effect. I have administered it at the hospital in the presence of the students and physicians—the room for operations being as full as possible. For further particulars I will refer you to extracts from the daily journals of this city, which I forward to you.

“Respectfully yours,

“WM. T. G. MORTON.”

“HARTFORD, CONNECTICUT, *October 20, 1846.*

“DR. MORTON—*Dear Sir:* Your letter dated yesterday, is just received, and I hasten to answer it, for fear you will adopt a method in disposing of your rights, which will defeat your object. Before you make any arrangements whatever, I wish to see you. I think I will be in Boston the first of next week—probably Mon-

day night. If the operation of administering the gas is not attended with too much trouble, and will produce the effect you state, it will, undoubtedly, be a fortune to you, provided it is rightly managed.

"Yours, in haste,

"H. WELLS."

"BOSTON, February 17, 1847.

"R. H. DANA, Esq.—*Dear Sir*: In reply to your note of this morning, I have to state that about the time I was engaged in preparing the papers for the procural of the patent, in the United States, on the discovery of Dr. Morton, for preventing pain in surgical operations, by the inhalation of the vapor of sulphuric ether, I was requested by Dr. Morton to call at his office to have an interview with the late Dr. Horace Wells, who was then on a visit to this city, and who, Dr. Morton thought, might be able to render him valuable advice and assistance in regard to the mode of disposing of privileges to use the discovery. Accordingly I had an interview with Dr. Wells. During such meeting we conversed freely on the discovery and in relation to the experiments Dr. Wells had been witness to in the office of Dr. Morton. The details of our conversation I do not recollect sufficiently to attempt to relate them, but the whole of it, and the manner of Dr. Wells at the time, led me, in no respect, to any suspicion that he (Dr. Wells) had ever before been aware of the then discovered effect of ether in annulling pain during a surgical operation. Dr. Wells doubted the ability of Dr. Morton to procure a patent, not on the ground that he (Dr. Morton) was not the first and original discoverer, but that he (Dr. Wells) believed the discovery was not a legal subject for a patent. He advised him, however, to make application for one, and to dispose of as many licenses as he could while such application might be pending; in fact, to make as much money out of the discovery as he could while the excitement in regard to it might last. I must confess that when, some time afterwards, I heard of the pretensions of Dr. Wells to be considered the discoverer of the aforementioned effect of ether, I was struck with great surprise, for his whole conversation with me at the time of our interview, led me to the belief that he fully and entirely recognized the discovery to have been made by Dr. Morton, or at least partly by him and partly by Dr. C. T. Jackson, as I then supposed.

"Respectfully yours,

"R. H. EDDY."

The evidence presented with Dr. Wells' claim shows that dental operations were in several instances performed without pain by Dr. Wells, under the influence of nitrous oxide, which had been before known in some cases to produce a total or partial asphyxia. It appears also that the vapor of sulphuric ether was thought of, discussed, and finally rejected by him—while the total abandonment of the use of nitrous oxide, and indeed of every other agent, shows that Dr. Wells' experiments were, on the whole, unsuccessful. He engaged in the search and failed to find the object of his pursuit. He attempted and endeavored assiduously to carry out the idea to practical results, but was not successful. There was great merit in the effort, but it proved a failure.

Dr. Wells, therefore, in the opinion of your committee, is not entitled to the honor of the discovery. He stopped half way in the pursuit. He had the great idea of producing insensibility to pain, but he did not verify it by successful experiments. He mistook the means, and he unfortunately rejected the true anæsthetic agent as dangerous to life, and therefore did not make the discovery and give it to mankind. He did what Dr. Beddoes, Sir Humphrey Davy, and Dr. Townsend had done about the close of the last century, but nothing more.

* This arbitration was proposed by Morton and accepted by Jackson, and not refused by him until it had had the effect to keep Morton from sending publications abroad, and had given Jackson an opportunity to have himself proclaimed the discoverer all over Europe. (See *Edmund Warren's Pamphlet*, 3d Edition, p. 40, 41.)

But he had the signal merit of reviving the investigation, and, probably, of hastening the discovery. If an idea connected with the subject lay dormant in the mind of any one, his attempt was well calculated to awaken it into life. When in the fall of 1844 he made his public attempt, in Boston, to produce anæsthesia during a dental operation, by the use of nitrous oxide, if Dr. Jackson had indeed made and perfected this discovery, and felt an abiding confidence in its truth, who can doubt that he would have availed himself of that occasion, or have been reminded by it, to make for himself another, at an early day, of publicly exhibiting and testing the true anæsthetic agent?

The question of discovery, which your committee has thus endeavored to examine, was every way proper to be tried and settled by intelligent men, as a jury of the vicinage, which was proposed by Dr. Morton and refused by Dr. Jackson.* But it was finally tried by a most appropriate tribunal—the Trustees of the Massachusetts General Hospital, at which the first public exhibition of this pain-destroying power was made and where its effects were first witnessed by an admiring audience. The question of discovery was tried before these men—trustees of a scientific corporation, to whom Dr. Jackson was well known as a distinguished member of the medical faculty, and to whom Dr. Morton, prior to the discovery, and the contest to which it led, was known only as a young man of energy and enterprise. And this Board, composed of men whose names would do honor to any scientific institution, presently after the discovery, near the

time and at the place where it occurred, gave, by a unanimous voice, its honor to Dr. Morton. One year after they reviewed their decision, at the request of Dr. Jackson, and unanimously confirmed it. In this connection your committee deem it proper to introduce a letter from the honorable Secretary of State:

WASHINGTON, *December 20, 1851.*

"Dr. W. T. G. MORTON—*Dear Sir:* In reply to your letter of the 17th inst., I would say that, having been called on, on a previous occasion, to examine the question of the discovery of the application of ether in surgical operations, I then formed the opinion which I have since seen no reason to change, that the merit of that great discovery belonged to you, and I had supposed that the reports of the Trustees of the Hospital and of the Committee of the House of Representatives of the United States, were conclusive on this point.

"The gentlemen connected with the hospital are well known to me as of the highest character, and they possessed at the time of the investigation, every facility for ascertaining all the facts in the case.

"The Committee of the House were, I believe, unanimous in awarding to you the merit of having made the first practical application of ether, and a majority by their report, awarded to you the entire credit of the discovery.

"Very respectfully, your obedient servant,
"DANIEL WEBSTER."

Before this tribunal, neither time, place, nor circumstance, permitted bold and confident assertion to be mistaken for truth. With this award we think Dr. Jackson, Dr. Wells, and the scientific world should have been satisfied. It is, in the opinion of your committee, entitled to great weight. It was the *first*, and ought to have been the *only* contest. Our enlightened system of jurisprudence forbids, except under extraordinary circumstances, a *second trial of questions of fact*. It forbids it, as a guard against the danger incident to repeated investigations, that truth will be overborne by artfully manufactured evidence.

Therefore, even if the evidence before your committee rendered the question of fact doubtful, which it does not, they would hesitate long before they would overrule the decision of the Trustees of the Massachusetts General Hospital.

It is also a subject of much gratification to this committee, to be able to concur in the opinion of the former committee of the House, from whose very able report they have extracted so largely. They did not, however, feel themselves bound by either the one or the other, but gave the subject for themselves a full and careful consideration. But they are the more satisfied with the conclusions to which they have come, because of their concurrence with such high and unexceptionable authorities.

Dr. Jackson appeals to the Academy of Arts and Sciences at Paris, and claims that that learned body has decided the question of discovery in his favor, by awarding him the "Monthyon prize for the greatest medical discovery," and that their decision ought to be taken as final and conclusive.

Your committee, for obvious reasons, would at once bow to the decision of that very learned society, (the centre and soul of scientific knowledge in Europe,) as to the fact of discovery, and that the honor of the discovery belonged to America, and also as to its merit and value among the discoveries of the age. But on the question, *Who was the discoverer?* their decision, if they made one, is entitled to much less weight. They are remote from the scene—had no means at an early day of possessing themselves of the evidence—and we have already seen how the minds of the members of the Academy were pre-occupied by Dr. Jackson's sealed letter of November 13, 1846, and his letter of December 1, directing the seal of the former letter to be broken. The temporary secrecy, with the form and circumstance of the disclosure, together with his European reputation for science, were, in the absence of any conflicting evidence* or claim, well calculated to make a first impression in his favor.

* "On the 31st of January last the Institute of France awarded the 'Cross of the Legion of Honor' to Dr. Jackson as the discoverer of etherization."—*Minority Report No. 114, thirtieth Congress, 28th February, 1849.*

In the *Compte Rendus* of March 24, 1848, are the following sentences:

M. Morton announced the sending of documents destined to establish in his favor the priority relative to the discovery of the effect of the inhalation of the vapor of ether. The documents announced are not yet before the Academy. The letter of M. Morton was sent to be examined by the commission upon ether and chloroform.

Boston, March 14, 1849.

DEAR SIR: By a letter received from our Paris agent while you were in Washington, we learn that your pamphlets, addressed to the French Academy and others, owing to a wrong impression, have not as yet been received. They remained at the French custom-house from May 6 to December 16. The duties on them have now been paid, and they are in the hands of an agent at Paris awaiting your further instructions. Please give us your orders in season for transmitting per next steamer from Boston.

We remain your obedient servant,

HARDEN & CO.

W. T. G. MORTON, M. D.

PARIS, May 10, 1849.—You ask me in regard to the ether quarrel and Dr. Jackson. These are the answers:

1. In the first place, the *Grand Cross* of the Legion of Honor has *not* been conferred on Dr. J. There are ten degrees; the lowest—that of Chevalier—was given to him. It is a very problematic honor; the manner in which it was distributed by Louis Phillippe having made it a distinction to be without it. Recently it was offered to M. Richard, one of the mayors of Paris, who refused it on this ground.

2. The giving the Cross to Dr. Jackson was principally owing to the efforts of M. Eli de Beaumont, the distinguished geologist, and was just as much for what Dr. Jackson may have done as a geologist as for anything he may have had to do with ether.—*Letter of Mr. Sumner, brother of Senator Sumner, to Dr. George Hayward, of Boston.*

The gold medal was given upon the same consideration.

But the Academy of Arts and Sciences at Paris did not, as it appears, award to Dr. Jackson the honor of the discovery, either directly or indirectly, by awarding him "*the Monthyon prize for the greatest medical discovery.*" Your committee have inspected the official awardments, exhibited by the parties, and find that the award to Dr. Jackson was "*one of the prizes of medicine and surgery of the Monthyon foundation.*" And M. Alexander Vattermare, in his letter to Dr. Morton, gives an extract from the formal decision made by that learned body, "between these two celebrated contestants," as follows :

"Mr. Jackson and Mr. Morton were necessary to each other. Without the earnestness, *the preconceived idea*, the courage, not to say the audacity of the latter, the fact observed by Mr. Jackson might have long remained unapplied; and but for the fact observed by Mr. Jackson, the idea of Mr. Morton might perhaps have been sterile and ineffectual;" "consequently, (he proceeds,) there has been awarded a prize of two thousand five hundred francs to Mr. Jackson for his observations and experiments upon the anæsthetic effects of sulphuric ether, and another of two thousand five hundred francs likewise to Mr. Morton, "for having introduced the method in surgical practice after the indications of Mr. Jackson."

Dr. Morton has, within a few days, received the expression of the Academy in the more acceptable form of their largest gold medal. The prize awarded to him, as above stated, being of an amount not absorbed by the medal, has been appropriately used in enclosing it in a suitable golden frame. On the one side of the medal, in addition to the name of the institute, is a medallion head of the Goddess of Liberty. On the reverse, surrounded by a wreath of laurel, is engraved—

"Académie des Sciences. Prix Monthyon—Medicine et Chirurgie—Concours de 1847 et 1848. Wm. T. G. Morton, 1850."

Upon a full examination of the whole case so far as time and means were afforded to your committee, they have come to the conclusion—

1st. That Dr. Horace Wells did not make any discovery of the anæsthetic properties of the vapor of sulphuric ether, which he himself considered reliable, and which he thought proper to give to the world. That his experiments were confined to nitrous oxide, but did not show it to be an efficient and reliable anæsthetic agent, proper to be used in surgical operations and in obstetrical cases.

For the rest your committee have come to the same conclusions that were arrived at by the Trustees of the Massachusetts Gene-

ral Hospital at their meeting in January, 1848, and reconsidered and confirmed in 1849, and adopted by the former committee of the House, viz :

2d. *That Dr. Jackson does not appear at any time to have made any discovery in regard to ether, which was not in print in Great Britain some years before.*

3d. *That Dr. Morton, in 1846, discovered the facts, before unknown, that ether would prevent the pain of surgical operations; and that it might be given in sufficient quantity to effect this purpose, without danger to life. He first established these facts by numerous operations on teeth, and afterwards induced the surgeons of the hospital to demonstrate its general applicability and importance in capital operations.*

4th. *That Dr. Jackson appears to have had the belief that a power in ether, to prevent pain in dental operations, would be discovered. He advised various persons to attempt the discovery; but neither they nor he took any measures to that end, and the world remained in entire ignorance of both the power and safety of ether, until Dr. Morton made his experiments.*

5th. *That the whole agency of Dr. Jackson in the matter appears to consist only in his having made certain suggestions, which aided Dr. Morton to make the discovery—a discovery which had for some time been the object of his labors and researches.*

Though it was but “a single step, and that a short one,” from the daily walks of science to this great discovery, yet the scientific world admits that the step was never taken prior to the 30th of September, 1846 : and the discovery, when in fact made, was instantly appreciated and hailed by the surgical profession with the most exalted enthusiasm, almost with shouts of rapture. In a letter written fresh on the verification of the discovery in England, the grave and sedate Liston says :

“HURRAH !

“Rejoice ! Mesmerism, and its professors have met with a ‘heavy blow, and great discouragement.’ An American dentist has used ether (inhalation of it) to destroy sensation in his operations, and the plan has succeeded in the hands of Warren, Hayward, and others, in Boston. Yesterday I amputated a thigh, and removed, by revulsion, *both* sides of the great toe nail, without the patient’s being aware of what was doing, so far as regards pain. The amputation-man heard, he says, what we said, and was conscious, but felt neither the pain of the incisions, nor that of tying the vessels. In short, he had no sensation of pain in the operating theatre. I mean to use it to-day, in a case of stone. In six months no operation will be performed without this pre-

vious preparation.* It must be carefully set about. The ether must be washed, and purified of its sulphurous acid and alcohol. Shall I desire Squire, a most capital and ingenious chemist, to send you a tool for the purpose? It is only the bottom of Nooth's apparatus, with a sort of funnel above, with bits of sponge, and, at the other hole, a flexible tube. Rejoice!

"Thine always, R. L."

Mr. Velpeau, one of the most eminent surgeons of Paris, in his treatise on medical operations in 1839, says:

"To avoid pain in surgical operations is a chimera which it is not allowable to pursue at the present day. The cutting instrument and pain, in operative medicine, are two words which never present themselves singly to the mind of the patient, and of which we must necessarily admit the association."

But in a communication to the Academy of Arts and Sciences at Paris, on the 27th of January, 1847, he speaks thus:

"I desire that the question of priority be immediately laid aside; it does not appear, in effect, to have any foundation. To say that some one has stupefied or put to sleep some dogs or hens, is nothing to the purpose; for this action of ether has been known fifteen, twenty, thirty years and more. The Dictionaries of Medicine, Treatises on Medical Jurisprudence—that of M. Orfila, and the toxology of the last author in particular—indicate it formally. That which is new, is the proposition to render the patient totally insensible to pain, under a surgical operation, by means of inspiration of ether."

And the venerable and sage Dr. Warren, in his work on etherization, speaks in the following impressive and exalted strain:

"A new era has opened to the operating surgeon! His visitations on the most delicate parts are performed, not only without the agonizing screams he has been accustomed to hear, but sometimes with a state of perfect insensibility, and occasionally even with the expression of pleasure on the part of the patient. Who could have imagined that drawing the knife over the delicate skin of the face might produce a sensation of unmixed delight! that the turning and twisting of instruments in the most sensitive bladder might be accompanied by a beautiful dream! that the contorting of ankylosed joints should co-exist with a celestial vision! If Ambrose Paré, and Louis, and Dessault,

* Of course, this is not to be considered as Mr. Liston's deliberate opinion; but just the first flash of enthusiasm, at once natural and becoming, in the circumstances.

and Chesselden, and Hunter, and Cooper, could see what our eyes daily witness, how would they long to come among us and perform their exploits once more! And with what fresh vigor does the living surgeon, who is ready to resign the scalpel, grasp it, and wish again to go through his career under the new auspices!"

The question of who was the discoverer being thus, as the committee trust, placed beyond dispute, they turn their attention next to the *value* of the discovery.

It supplies a desideratum long sought by surgeons for the relief of the excruciating pain they were necessarily obliged to inflict in the practice of their profession. They had, as heretofore stated, vainly attempted this relief by the use of opiates, extract of hemp, mesmerism, &c.; but none fulfilled the desired purpose; and their suggestion of the necessity to life or limb of an operation, was apparently ever doomed to be accompanied with the, to many, all absorbing feeling of terror of the pain which there was no known means of avoiding. Dread of pain has not unfrequently deterred from submission to operations necessary to the preservation of life. In other cases, where this dread was overcome and the operation performed, the severity of the suffering and the shock to the system have been large elements in the production of a fatal result. Since the introduction of etherization, both the patient and surgeon approach the operation with feelings entirely different from those formerly entertained under similar circumstances. The latter is relieved from the necessity of witnessing those manifestations of pain which his instruments formerly produced, and to ever become indifferent to which he must be more or less than human; while the former looks only to the end to be attained—the restoration to health—there being no intermediate pain to excite his dread and fix his exclusive attention. For screaming, and struggles, and intense suffering under the surgeon's knife, etherization has substituted more or less complete exemption from pain, associated in some with the quietude, mental and corporeal, of deep sleep; in others, with pleasing dreams, imaginary busy scenes, and sweet music; and in others, with a perfect consciousness of surrounding objects and events, making the patient, perhaps, not among the least calm or most anxious spectators of the operation.

And its benefits are by no means confined to surgical patients and surgical practice. The obstetrician finds it in the means of alleviating that distress with which woman has ever heretofore been cursed, when in the act of becoming a mother. And who would not hail with delight any means of ministering comfort to her who bears the holy name of mother? To the physician it affords one of the most useful, as it is one of his most prompt remedies. He, too, is often compelled to be the spectator of

severe pain and distress, for the alleviation of which his before known remedies were powerless. He, before, had no reliable means of relieving the spasms of tetanus; he not unfrequently failed to procure sleep in *delirium tremens*, when the question is one of sleep or death; his before palliative remedy (opium) for the pain of colic, too often purchased temporary relief at the expense of an aggravation of the cause of the disease, and of increased difficulties in its cure; and he occasionally witnessed the breaking up of the system of a neuralgic patient, more as a consequence of the repeated large doses of opium to which he was constrained to resort for the mitigation of his paroxysms, during the slow progress of curative remedies, than of the disease itself. But an enumeration of all, or of any considerable number of the cases in which he finds it useful, nay, indispensable, is neither required, nor would it be proper in a paper of this character.

It is no answer to this to allege that the discovery is capable of injury or mischief. Ignorance of the proper use of anything leads to its abuse; and what is not abused, the use of which depends upon human judgment? Being of indispensable value to all, as all are liable to require its use, the committee deem the discoverer entitled to reward, as a benefactor of the human race. But his application rests not solely on that ground. The discovery is used by the United States government in the army and navy, and for that use the government is clearly bound to compensate him; especially as they secured to him the use of the discovery by letters patent, Dr. Jackson having first assigned his claim to Dr. Morton. The committee have thought proper to annex the following extracts from the records of the Patent office:

"I have therefore, in consideration of one dollar, to me in hand paid, the receipt whereof I do hereby acknowledge, assigned, set over, and conveyed, and by these presents do assign, set over, and convey to the said Morton and his legal representatives, all the right, title, and interest whatever which I possessed in the said invention or discovery, a specification of which I have this day signed and executed in conjunction with him, for the purpose of enabling him to procure a patent thereon.

"And I do hereby request the Commissioner of Patents to issue the patent to the said Morton *in his name*, and as my assignee or legal representative, to the extent of all my right, title, and interest whatever in the said invention or discovery.

"In testimony whereof, I have hereto set my signature and affixed my seal, this twenty-seventh day of October, one thousand eight hundred and forty-six.

"CHARLES T. JACKSON.

"Witness: R. H. EDDY."

"UNITED STATES PATENT OFFICE.

"Received this 10th day of November, 1846, and recorded in liber F 1, page 118, of Transfers of Patent Rights.

"In testimony whereof, I have caused the seal of the Patent Office to be hereunto affixed.

"EDMUND BURKE,

"*Commissioner of Patents.*"

No. 4,848.

THE UNITED STATES OF AMERICA.

To all to whom these letters patent shall come :

"These are therefore to grant, according to law, the said Wm. T. G. Morton, his heirs, administrators, or assigns, for the term of fourteen years from the 12th day of November, 1846, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement."

Numerous instances have occurred, to which your committee beg leave to refer, in which compensation in money has been made by Congress, as a reward for like discoveries, of less importance to the country and mankind, namely :

PATENTS PURCHASED.

Tucker and Judge—For the construction of anchors for the Navy, Statutes at Large, vol. 6, page 659, \$1,500.

Daniel Pettibone—For the use of circular bullet moulds, Statutes at Large, vol. 6, page 833, \$5,000.

Boyd Reilly—For the use of gas in vapor baths, Statutes at Large, vol. 6, page 994, \$5,000.

William H. Bell—for elevating heavy cannon, and for pointing the same, Statutes at Large, vol. 5, page 126, \$20,000.

Isaac Babbit—for the right of use of the patent anti-antrition metal, Statutes at Large, vol. 5, pages 547 and 636, \$2,000.

Heirs of Robert Fulton—For the benefits conferred upon the country by his improvements in navigation by steam, Statutes at Large, vol. 9, page 660, \$76,300.

Anne M. T. Mix, widow of M. P. Mix—For the purchase of Mix's manger stopper, Statutes at Large, vol. 9, page 82, \$3,000.

Doctor Locke—For the free use, by the United States, of his invention of the magnetic clock, Statutes at Large, vol. 9, page 374, \$10,000.

R. S. McCulloh and James C. Boothe—To purchase the right

to use the improved methods of refining argentiferous gold bullion, Statutes at Large, vol. 9, page 530, \$25,000.

APPROPRIATIONS FOR EXPERIMENTS TO TEST PATENTS.

Samuel Colt—Submarine battery, Statutes at Large, vol. 5, page 584, \$15,000.

Sarah F. Mather—Submarine telescope, Statutes at Large, vol. 5, page 667, \$2,000.

S. F. B. Morse—Electro magnetic telegraph, Statutes at Large, vol. 5, page 618, \$30,000.

For testing inventions for preventing explosion of steam boilers, Statutes at Large, vol. 5, page 793, \$5,000

—— Earle—For the preservation of canvass, Statutes at Large, vol. 9, page 170, \$5,000.

Uriah Brown—For testing steam fire ships, and shot proof steamships, Statutes at Large, vol. 9, page 273, \$10,000.

James Crutchett—For testing solar gas lights and erecting fixtures, Statutes at Large, vol. 9, page 207, \$17,500.

—— Isherwood—For testing light for lighthouses, Statutes at Large, vol. 9, page 323, \$6,000.

Charles G. Page—To test the capacity and usefulness of electromagnetic power, for the purposes of navigation and locomotion, Statutes at Large, vol. 9, page 375, \$20,000.

Though fully satisfied of the value of the discovery, the committee thought it not proper to act upon their own unaided opinions. The chairman addressed circulars to the different hospitals, to medical institutions, to many of the most eminent physicians and surgeons in the United States, (see appendix,) and to the surgeons of the army and navy. The answers to these are very numerous; too much so, and too lengthy for publication, but have been perused, and their contents carefully noticed by the committee. Only two of this mass of letters speak disparagingly of the discovery, and one of those does not profess to speak from the writer's own observation. The committee annex extracts (see appendix,) from some of these answers, and a few entire letters, exhibiting the general opinion of the *value* of the discovery—its value being indisputable, and almost universally acknowledged, it was not deemed necessary to multiply extracts in its proof—and exhibiting likewise, the use of the discovery in the army and navy.

The committee would likewise call particular attention to the following letters from the Surgeon General and Staff, and the Chief of the Bureau of Medicine and Surgery and Assistant, addressed to Dr. Morton, and which were laid before the committee:

"SURGEON GENERAL'S OFFICE,
March 1, 1852.

"SIR: In compliance with your verbal request to be furnished with information in regard to the employment of anæsthetic agents in the army of the United States, and also for an expression of opinion as to the value and importance of this class of remedial agents, I have to state:

"That sulphuric ether and chloroform were used to some extent in the military hospitals established at the theatre of war in Mexico, but the use of those articles was not so general as at present, for the reason that the apparatus at that time believed to be essential to their proper and safe administration, was not adapted to service in the field.

"At the present moment it is believed that no surgical operation of importance is performed by the medical officers of the army without the aid of some anæsthetic agent.

"Previous to the discovery of this new application of sulphuric ether, the annual supply of that medicine was one pound for every hundred men. On the revision of the standard supply table, by a board of medical officers, in 1849, the pure washed sulphuric ether was substituted for the ordinary sulphuric ether, and the quantity allowed was increased one hundred per cent. At the same time another anæsthetic agent, the tincture of chloroform, commonly called chloric ether, was added to the supply table, and is now regularly furnished to the medical officers in such quantities as, in connexion with the sulphuric ether, will suffice to meet all the demands of the service in this particular.

"Although the discovery of this new therapeutic effect of sulphuric ether has led to the introduction and employment of other anæsthetic agents, this does not in any way militate against the merits of the original discovery, which I regard as one of the most important and valuable contributions to medical science, and to the relief of suffering humanity, which has ever been made; the only discovery to be compared therewith being that of vaccination, which has rendered the name of Jenner immortal.

"Through the influence of these remedial agents, the surgeon is not only enabled to perform the most extensive and difficult operations, undisturbed by the cries and struggles of the patient, but what is of far greater importance, the patient being rendered insensible, escapes that shock to the nervous system, which in itself is not unfrequently fatal. For this reason operations can now be performed with much more safety than heretofore, and that, too, in cases in which the attempt to perform them would have been forbidden by the general condition of the patient.

"To the physician this class of remedial agents promises to be of the greatest utility, though their application in the treatment of disease has yet to be more fully developed.

"It will suffice at this time to allude to their employment for

the relief of suffering woman in the hour of her greatest trial, and at the moment she claims our warmest sympathies. That these agents can be safely used in parturition, so as to afford full and entire exemption from pain to the mother, and with safety both to her and to the child, has been amply demonstrated.

"In conclusion, permit me to congratulate you upon the flattering testimonial you have received from the National Institute of France for this discovery, and to express the hope, that inasmuch as it is impossible for you to derive any pecuniary benefit therefrom in ordinary course by letters patent, you may receive from your country that acknowledgment of your merit which is due to one who has conferred so great a boon upon mankind.

"I am, very respectfully, your obedient servant,

"TH. LAWSON,

"*Surgeon General.*

"W. T. G. MORTON, M. D.,

"*Brown's Hotel, Washington, D. C.*"

"SURGEON GENERAL'S OFFICE,

"*March 10, 1852.*

"SIR: The undersigned take pleasure in adding their testimony to the mass of evidence you have already accumulated in regard to the value and importance of the discovery of the anæsthetic properties of sulphuric ether, and the consequent introduction of a new class of remedial agents into the practice of medicine and surgery.

"The more general and important advantages which surgeons and physicians, as well as patients, have derived from this great discovery, are so fully yet concisely set forth in the communication addressed to you a few days since by the Surgeon General, as to need no repetition here, and we therefore prefer alluding to an application of this class of remedial agents, which, so far as we have seen, has not been mentioned by your correspondents.

"We refer to their employment in the army and navy for the detection of feigned diseases. The consummate art oftentimes displayed by malingers who are desirous of procuring their discharges from the service, or to escape unpleasant duty, is such as not unfrequently to baffle the skill of the most experienced medical officers. It is not enough in these cases to *suspect* that disease is feigned—humanity requires that the fact of malingering be *proved*, before the kind offices of the physician are refused. In many instances the use of anæsthetic agents will afford this positive proof, and although we do not recommend or advocate their employment for this purpose as a general rule, we nevertheless believe that in some cases it is the duty of the medical officer to resort to them to satisfy his doubts.

"In illustration of the foregoing remarks, we refer you to the enclosed copies of proceedings instituted in this office in January,

1849, in the case of Charles Lanke, formerly a private of artillery, who applied for a pension on account of alleged ankylosis of the knee-joint, and to whom the sulphuric ether was administered by yourself, in the presence of Dr. Edwards, of Ohio, and several other members of Congress.

"Very respectfully, your obedient servants,

"H. L. HEISKELL,

"*Surgeon U. S. Army.*

"RICH'D. H. COOLIDGE,

"*Ass't. Surgeon U. S. Army.*

"W. T. G. MORTON, M. D.,

"*Brown's Hotel, Washington, D. C.*"

"SURGEON GENERAL'S OFFICE,

"*January 22, 1849.*

"SIR: I have the honor to acknowledge the receipt of your letter of the 18th instant, by the hands of Charles Lanke, formerly a soldier in the army, who has been charged with malingering.

"In accordance with your desire, I caused a careful examination to be made by two medical officers of the army, whose report is herewith enclosed.

"As the most reliable means of ascertaining the true condition of this man's limb, these gentlemen endeavored to place him in a state of *insensibility*, by the inhalation of washed sulphuric ether. The cause of their failure in rendering him insensible, is explained in their report; and I may also add, that during the short time I was called to be present, I had good reasons to think that the man strongly resisted the efforts of the two medical gentlemen to render him insensible.

"Lanke has again been here this morning with an interpreter, and has had explained to him that whenever he shall consent to be rendered insensible, and it is found that his knee joint still remains immovable, he shall have the benefit of a certificate to that effect.

"Very respectfully, your obedient servant,

"By order:

H. L. HEISKELL

"*Surgeon U. S. Army.*

"HON. CHARLES BROWN, *House of Reps.*"

"SURGEON GENERAL'S OFFICE,

"*January 20, 1849.*

"SIR: In compliance with your instructions we have made a careful examination of the alleged disability of Charles Lanke, formerly a private of Captain Sherman's company of 3d artillery, and beg leave to report:

"That we can find no mark of severe injury received on his knee, no deep cicatrix of the integuments, and no scarification,

&c., such as would have been made in the course of treatment for an inflammation of the knee-joint.

"We can find no evidences of any injury to the bones, and express our doubt whether a simple contusion would have caused such a permanent stiffness of the joint.

"As the only means at our disposal to test the question of malingering, we endeavored to place him under the influence of the washed sulphuric ether, in order to create insensibility to our manipulations.

"This we were unable to do, the patiently evidently resisting by holding his breath, &c., and when apparently about to fall under its influence, refusing to breath it at all, by pushing the assistant from him, when about to add an additional supply of ether.

"We are fully persuaded that the patient did use considerable muscular force and an evident effort of will to resist the bending of the limb, in the course of the experiment.

"As the result of our examination we would respectfully submit the following opinion, that we do not think that we should be justified in giving a certificate of disability to Charles Lanke; but still there being a bare possibility that injustice may be done the man, we are willing to repeat the trial by ether, which is truly an "experimentum crucis," whenever the applicant for pension shall state his readiness to submit.

"R. H. COOLIDGE,

"*Assist. Surgeon U. S. Army.*

"ALEXR. S. WOTHERSPOON,

"*Assist. Surgeon U. S. Army.*

"Dr. H. L. HEISKELL, *Surgeon U. S. Army.*"

"SURGEON GENERAL'S OFFICE,

January 26, 1849.

"SIR: I have the honor to inform you that Charles Lanke, having expressed his willingness to be rendered insensible by ether, that article was this day administered to him by Dr. Morton, of Massachusetts, in the presence of Dr. Edwards, and a number of other members of Congress and medical gentlemen.

"Having come fully under its influence, the limb was completely flexed without force, proving conclusively that the stiffness of the knee-joint was altogether feigned.

"From the mingled distress and surprise exhibited by Lanke on recovering his consciousness, at seeing his leg bent at a right angle with the thigh, it was apparent that the sudden recovery of the motion of his knee-joint was anything else than welcome.

"Very respectfully, your obedient servant,

"By order:

H. L. HEISKELL,

"*Surgeon U. S. Army.*

"HON. CHARLES BROWN, *House of Reps.*"

" SURGEON GENERAL'S OFFICE,

February 27, 1852.

" SIR : It affords me pleasure to bear testimony to the high value of anæsthetic agents, both in the practice of surgery and medicine.

" I consider it the greatest improvement of the century. It is now an indispensable agent in the alleviation of pain during surgical operations, and in the amelioration of many distressing symptoms and diseases of daily occurrence. Its many uses are only beginning to be appreciated by the medical profession, and it is impossible to say what limits may be placed to its employment. Too much cannot be said in praise of this class of remedical agents.

" Very respectfully, your obedient servant,

" A. S. WOTHERSPOON,

" Assistant Surgeon U. S. Army.

" Dr. W. T. G. MORTON."

" NAVY DEPARTMENT, BUREAU OF MEDICINE AND SURGERY,

" February 26, 1852.

" SIR : As the views of this bureau are desired in regard to the importance attached to the different anæsthetic agents by the medical officers of the navy, it gives me pleasure to express the high sense entertained by them of their great utility, not only in surgical practice, but as powerful agents in many painful affections, which have resisted the ordinary remedies. This opinion is strengthened by the concurrent testimony of the ablest civil practitioners of our own country, with the emphatic endorsement of their value, by the best British and continental surgeons. In the absence of statistical information, accurately made up, it is somewhat difficult to estimate the relative value of these etherial preparations; but if the recorded opinions of professional men, as expressed in the various medical journals of this country and Europe, are deemed of any weight, the discovery of etherization as a means of avoiding pain in severe surgical operations, may be considered the most important, in a philanthropic view, which this century has produced.

" The observation that exhilarating effects resulted from the inhalation of ether is no recent acquisition to medical science; but the novelty and gist of this discovery consists in finding that nervous perception is suspended under the influence of the etherial inhalation, and while so suspended, the patient is unconscious of pain while under the operation of the knife.

" In addition to the great benefit derived from its use in alleviating pain, it has a decided effect in diminishing mortality. Its advantage in this respect appears to be in saving the system from the severe shock and nervous exhaustion which attend most of the

graver surgical operations, and which of themselves often prove fatal.

"It dispels the fear of pain, which formerly prevented many from submitting to an operation, or induce them to defer it until too late.

"It enables the surgeon, also, to operate more coolly and effectually, undisturbed by the cries and struggles of the patient, which sometimes unnerve the steadiest hand, and render abortive the best directed efforts.

"The medal of the first class, awarded to you by the 'Medical Institute' of Paris, evinces the high estimation entertained in that centre of medical science and intelligence, of the services you have rendered to humanity.

"It is earnestly hoped that our Government, with a similar appreciation of this great acquisition to medical science, will stamp their sense of its importance, by a substantial acknowledgment which, while it encourages the philanthropist in his efforts to meliorate the condition of his fellow men, will remunerate you in some measure for the toil and vexation attendant on your struggle for success.

"Respectfully your obedient servant,

"THO. HARRIS,

"Chief of the Bureau of Medicine and Surgery.

"Mr. WM. T. G. MORTON, M. D., Washington."

[*Extracts.*]

"NAVY DEPARTMENT, BUREAU OF MEDICINE AND SURGERY,

"March 11, 1852.

"I would state, however, that in the single capital operation in which the etherial inhalation was employed by me, it was attended with the happiest results, and impressed me with such a forcible conviction of its importance, that I deem it indispensable, as a general rule, in all serious surgical cases requiring the use of the knife.

"Its application in general practice is becoming daily and more enlarged, as its peculiar influence over the nervous system and 'perceptive' powers is developed; and the physician or surgeon who banishes it from his pharmacopœia, is neglecting one of the most potent weapons presented for his use, since the great discovery of Jenner.

"Upon the whole I have no hesitation in expressing the opinion that this discovery, when divested of the prejudices attending in some minds the introduction of all novelties, and when the accidents inseparable from its abuse or ignorant application, are ascribed to their proper causes, will take its rank among the most

valuable acquisitions which have ever been made to medical science.

“With great respect, your obedient servant,

“S. R. ADDISON,

“*Passed Assistant Surgeon U. S. Navy.*

“W. T. G. MORTON, M. D., *Washington City.*”

Inquiries were also instituted into its effect upon mortality, and especially of surgical operations. To be fully satisfactory, inquiries of this character should extend through a long series of years, and embrace very many cases, the results of which have been carefully observed. The discovery being of recent origin, no opportunity for inquiries and observations to such extent has been afforded. The answers to such inquiries, where received in specific form, have embraced one class only of operations, viz., amputations of thigh, leg and forearm. The statistics thus acquired, the committee believe to be reliable, as they are derived from the surgeons of the army and navy, from a few hospitals, and from eminent surgeons in civil practice. The result is appended in the following table, accompanying which will be found Prof. Simpson's European tables.

Amputations of the thigh, leg, arm, and forearm, communicated to the committee with their results. The greater number of those in which the patients were not etherized, were performed before the discovery of anæsthetic properties of ether and chloroform.

| Not etherized. | Of whom died. | Etherized. | Of whom died. |
|----------------|---------------|------------|---------------|
| 227 | 40 | 185 | 10 |

No. VIII.—*Table of the Mortality of Amputation of the Thigh, Leg, and Arm.*

| Reporter. | No. of cases. | No. of deaths. | Per cent. of deaths. |
|--|---------------|----------------|----------------------|
| Parisian Hospitals—Malgaigne | 484 | 273 | 57 in 100 |
| Glasgow Hospital—Lawrie - | 242 | 97 | 40 in 100 |
| General Collection—Phillips - | 1369 | 487 | 35 in 100 |
| British Hospitals—Simpson - | 618 | 183 | 29 in 100 |
| <i>Upon patients in an etherized state</i> | 302 | 71 | 23 in 100 |

Six hundred and sixty-nine cases of anæsthesia in obstetrical practice are likewise reported in Professor Simpson's work—"Anæsthesia in Surgery and Midwifery"—and a tabular statement of five hundred and sixteen cases in Dr. Channing's work—"Etherization in Childbirth"—the result being highly satisfactory.

Great Britain, France, and all other enlightened nations, have, from time immemorial, rewarded munificently such services to humanity. The British Parliament, by two successive statutes, bestowed upon Jenner the sums of ten thousand and twenty thousand pounds for the discovery of vaccination. The world has as yet produced but one great improvement in the healing art deserving to be ranked with that of Jenner.* America, by annihilating pain, has done as much for the benefit of the race, as Eng-

* *Extracts from the British and Foreign Medico-Chirurgical Review, for April, 1852.*

Applications of Anæsthesia to Surgery, Midwifery, and Dentistry.—Of the desirableness of the subjugation or annihilation of pain in surgical operations, considered in itself, we cannot, on the whole, for a moment doubt; to disarm the operating table of a great portion of its terrors, is indeed a triumph of which our age may be justly proud. Not only is the actual pain of an operation thus removed, but also, in great part, that indescribable horror which often torments the patient for some time previously. Men of the greatest courage in other respects, and who have faced danger and death in many forms, have yet shrunk from the prospect of the slow and cold-blooded torture they had before them from the knife of the surgeon. Indeed, however man may summon his fortitude to meet physical pain, or any other dire misfortune, we must all bow to the laws of humanity, and *feel* the severity of fate, in spite of the efforts of our moral nature to rise above it. But when we find that this great relief which anæsthetic agents afford, is to be obtained almost without risk, and on the whole with very beneficial results otherwise, we should receive this great discovery with gratitude and exultation. So complete is the general use of anæsthetic agents, that the element of pain as an obstacle or source of danger or of terror in surgery, is for ever almost destroyed. Manual and instrumental therapeutics, as a branch of materia medica, now proceeds, says M. Bouisson, "in the silence, as it were, of vegetative life, and its salutary mutilations are only made now by changes of form without any painful sensation having been experienced by the organism." True it is, as has been already shown, there are exceptions to the general rule; but they are so rare as not to militate practically against it.

Besides the applications of anæsthesia to operations, it may be employed in surgery most usefully to favor the diagnosis of some cases. Professor Miller recommends its use in the examination of some female diseases, to save the delicacy and modesty of the patients. There are some diseases which cannot otherwise be diagnosed without pain. For instance, in some diseases of the eye there is such intense photophobia with spasmodic contraction of the eyelids on the entrance of light into the eye, that it is very difficult to open the eyelid, so as to make a proper examination of the organ itself. In such cases, a moderate degree of anæsthesia will often overcome the resistance of the orbicularis, and destroy for a time the sensibility of the retina, so as to allow of the examination being made. In many accidents the pain renders it difficult to allow of the garments of the patient being removed, and the parts injured being properly examined. In burns it is often difficult to remove the scorched clothes, burned as it were into the skin. In many painful affections of the vagina, accompanied by constriction, it is often hardly possible to use the speculum. Cases of painful catheterism may also be adduced, and necessary exploration of the urinary canal and bladder. In such cases, and in others which can easily be imagined,

land did when she furnished the instrument by which the small-pox may be finally exterminated. It would be unworthy our greatness, and our destiny as the nation soon to be the most powerful on the globe, to undervalue a benefaction to mankind, which is the peculiar glory of science, of our age, and of our country.

Your committee therefore recommend, that an appropriation be

as in affections of children, when the struggles of the patient afford an obstacle, and in many instances of feigned disease, as we shall see under our fourth head, the services which anæsthesia may render to diagnosis are considerable. * * *

By overcoming pain, it has caused many operations which used to be as rarely performed as possible, to come more in the way of the surgeon: the removal of nails, and the operation of the actual cautery, need no longer inspire horror to the operator or to the patient. With the view of removing muscular resistance, its use has become general in the reduction of dislocations and the operation of the taxis. * * *

The diminution of the shock to the nervous system seems to favor the healing of wounds, and altogether increases the chances of recovery. The shivering and re-active fever which often follow operations are greatly diminished by etherization; there is generally more sleep, and more complete feeling of comfort. * * *

It is not necessary to point out the occasional benefit which may be derived from the use of anæsthesia in the taxis, in the reduction of dislocations, and setting of fractures. In all this class of surgical operations, cases must be continually occurring, proving to the surgeon the immense results which he may reap from the new discovery. * * *

Anæsthesia is now used in private and in public practice, as regularly in lithotomy as in other operations. * * *

Henceforth, even the cock-pit of a man-of-war, and the hospital after a field of battle, will be disarmed of half their terrors.

The argument in favor of the employment of anæsthesia [in midwifery] may be summed up as follows:

1st. The removal of the pain is beneficial to the mother by preventing the nervous excitement and shock which physical pain is apt to excite, and the nervous and inflammatory reaction which, in some constructions, is apt to result.

2d. It renders many operations, requisite in complicated labors, easier of performance, and more beneficial to the patient.

3d. Statistics prove the practice of anæsthesia to be beneficial to the mothers, and nowise dangerous to the children. * * *

Dr. Simpson, in 1848, communicated the results obtained in 1519 cases, and, in our opinion, established the utility of anæsthesia [in midwifery] upon incontestable grounds. * * *

Therapeutical Applications of Anæsthesia.—It is now evident that the use of anæsthetic agents is capable of an extension beyond the bounds of merely operative medicine. It has been transported into medicine itself; and perhaps this circumstance may attract the attention of the profession to the advantages which may accrue from the use of other remedies in the form of inhalations. When we consider the great extent of the pulmonary mucous membrane, and the facility with which vapors may be introduced through the respiration into the blood, it seems extraordinary that this mode of administering medicines has not been more exactly studied. * * *

Pain exists in a vast number of diseases, where even opium is insufficient to afford relief; in such cases a field is opened to the use of anæsthetic agents.

In several cases of intense facial neuralgia, benefit has been obtained from the inhalation of chloroform, when all other remedies have failed. In pains of the bowels, gastralgia, and in nervous cholics, similar results have followed. Many observers have pointed out the benefit derived from doses of chloroform in the liquid form, in relieving the pain at the early stages of cholera. * * *

made for the benefit of Dr. W. T. G. Morton, to be paid to him in consideration of his discovery of the anæsthetic properties of the vapor of sulphuric ether, and his public and successful application of the said pain-destroying agent in surgical operations, and of its use in the army and navy of the United States, and conditioned that he surrender to the United States his patent for the discovery. The majority of the committee, in view of its use as above mentioned, and of the incalculable value of the discovery to the whole world, are of the opinion that one hundred thousand dollars would not be an unreasonable appropriation for that purpose. They herewith report a bill. [The Committee on Naval Affairs, House of Representatives, and the Military and Naval Committees of the Senate, fully concur in the recommendation.—See p. 147.]

W. H. BISSELL, M. D., of Illinois,
JOS. SUTHERLAND, of New York,
ROBERT RANTOUL, jr., of Massachusetts.
GRAHAM N. FITCH, M. D., one of the

Regents of the Smithsonian Institution, late Professor Institute and Practice of Medicine in Rush Medical College.

OFFICE HOUSE OF REPRESENTATIVES, U. S.,
CITY OF WASHINGTON, *June 28, 1852.*

I, John W. Forney, Clerk of the House of Representatives of the United States of America, do hereby certify, that the accompanying printed document is a true copy of the report agreed upon by the Select Committee of the House of Representatives on the memorial of Doctor William T. G. Morton, for the discovery of etherization, and will be presented to the House of Representatives when the said Select Committee shall be called upon to report in the regular order of the business of the said House.

In testimony whereof, I have hereunto affixed my signature and the seal of the House of Representatives of the United States, this twenty-eighth day of June, in the year one thousand eight hundred and fifty-two.

ATTEST :

JOHN W. FORNEY,
Clerk of the House of Representatives, U. S.

In tetanus many favorable cases have been reported. * * *

In mental alienation anæsthesia has been a good deal used. * * *

Anæsthetic agents have been applied locally in the way of frictions, in nervous and rheumatic pains, in painful ophthalmia, and in orchitis. Under the hands of some it has been found exceedingly successful in relieving pain, and subduing inflammation, and in the dressing of ulcers.

It is very plain to us that we are only at the beginning of the medicinal use of these agents.

Applications to Legal Medicines.—Simulated dumbness, deafness, and stammering, can be detected.

See page 140.

AN ACT FOR THE RELIEF OF WM. T. G. MORGAN.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of War and the Secretary of the Navy be, and they are hereby authorized and instructed to receive from Wm. T. G. Morton his patent right for the use of sulphuric ether in producing insensibility to pain during surgical and other operations, which is at present in use or may hereafter at any time be introduced into the hospitals of the army and navy, the penitentiary of the United States, and board of the national shipping; and there shall be paid to the said Wm. T. G. Morton, the sum of *one hundred thousand dollars* out of any money in the treasury not otherwise appropriated, in full compensation for the surrender of all his rights under the said patent: *Provided, however,* That the said Wm. T. G. Morton shall surrender all right, interest, and benefit from the above letters patent to the Commissioner of Patents.

*Resolution from the Committee on Naval Affairs of the House
of Representatives.*

RESOLUTION.

Resolved, That the Committee on Naval Affairs of the House of Representatives agree in the propriety of the appropriation for Dr. W. T. G. Morton, for the discovery of etherization, recommended by the select committee of the House of Representatives on that subject, and adopt the suggestions of the chairman of the said select committee, (hereto annexed,) to offer the same as an amendment to the bill making appropriations for the naval service, in conformity with the views of the Secretaries of War, Navy, and Treasury Departments, as expressed in their correspondence with this committee, (see correspondence annexed.)

FREDERICK P. STANTON, of Tennessee.

THOS. B. FLORENCE, of Pennsylvania,

ROBT. GOODENOW, of Maine,

S. W. HARRIS, of Alabama,

E. CARRINGTON CABELL, of Florida.

HOUSE OF REPRESENTATIVES U. S.,
May 31, 1852.

SIR: I have the honor to inform you that the select committee of the House of Representatives, to whom was referred the memorial of Dr. William T. G. Morton, asking remuneration from Congress for the discovery of the anæsthetic properties of sulphuric ether, have agreed upon a report, (a copy of which is enclosed,) which they are awaiting an opportunity to present to the House. You will observe that in this report the committee fully recognise the inestimable benefits conferred upon the human race by this discovery, and believing that the example of the enlightened nations of the old world, in awarding munificently those who have rendered important services to humanity, is particularly worthy of imitation in the present instance, have determined to report a bill appropriating the sum of one hundred thousand dollars to Dr. Morton, as a compensation for his discovery, and in consideration of the surrender to the United States of all right and interest which he

now holds in that discovery, in virtue of letters patent granted to him by this government.*

* WASHINGTON, January 5, 1847.

DEAR SIR: Yours of the 26th ult. was received in due course of mail, and, in answer, I have to say that, at the time your application for preventing pain in surgical operations was under consideration in the Patent Office, Mr. Eddy consulted me on the *novelty and patentability of your discovery*. I then examined the subject carefully, and gave it as my decided and candid opinion that it was novel, and the legitimate subject of a patent; and this opinion has only been strengthened by further reflection. Under the law, any new and useful art is made the subject of a patent. This covers any discovery in modes of procedure having a useful object in view, and susceptible of being so defined as to instruct others to apply or make use of the mode of procedure. There can be no question that your discovery comes under this provision of law. It is a new mode of procedure, definite in its character, and which may be taught to others, and which, therefore, comes under the denomination of an art, as defined by the ablest judges in Europe and in this country.

Before your discovery, many attempts had been made to render persons insensible to pain, preparatory to surgical operations, by introducing into the stomach intoxicating substances; but this mode of procedure was unsuccessful. You then discovered that, by introducing into the lungs the vapor of certain substances, a different effect was produced from that of intoxication produced by the introduction of substances into the stomach, and that this effect was such as to render the patient insensible to pain: hence the use of this discovery, in connexion with surgical operations, is an improvement in the art of surgery. A discovery in the abstract is not the subject of letters patent; as the discovery of the elastic force of steam; of the pressure of the atmosphere; of the expansion of metals under the influence of caloric, &c.; for this is the mere finding out of something existing before.

The mere discovery in these cases had no direct useful application in the arts or affairs of life, and could not be appropriated to the sole use of the discoverers; but the moment any one of them could be applied to a useful practical purpose, then the party so applying it produces a useful result; and such application, originating in the mind of the discoverer or inventor, is no longer a discovery, in the abstract, of something before existing, but a new creation, which, having its origin in the mind of the discoverer, and not existing before, (for it is an artificial condition,) is, in view of the law, the property of the one who conceived it. There can be no question that the one who first conceived the idea of intoxicating a patient, preparatory to a surgical operation, would have been entitled to a patent for his new mode of procedure; how, then, does your plan differ from his? You conceived the idea that, by introducing the vapor of certain substances into the lungs, a different condition of the nervous system was produced, viz: a state of insensibility to pain; and, by connecting this mode of producing this state of insensibility to pain with surgical operations, you have produced a new and useful result, highly important in the art of surgery; the result of a new conception, originating in your mind, and legitimately the subject of letters patent. Your invention is the connexion of the two processes or modes of operation.

Before the date of Watt's invention of the steam-engine, the expansive force of steam had been applied to a piston in a cylinder, and it was well known that, by the application of cold water, steam could be condensed in a vessel to effect a vacuum; and all that immortalized that great man was the union of these two ideas, or modes of procedure: applying the force of steam in one vessel, and condensing it in another. In a legal point of view, your invention does not differ from this, which has been admitted to be patentable by all the legal knowledge of the world, and the universal consent of civilized man.

I am, sir, yours, very respectfully,

CHARLES M. KELLER, *for Keller & Greenough.*
Dr. W. T. G. MORTON, *Boston, Mass.*

The sum above mentioned will, it is believed, not be deemed too large,* when we remember the benefits which have been conferred, and when we consider the fact that, contrary to that provision in the Constitution which declares that "private property shall not be taken for public use without just compensation," this nation has been for years, and is now daily availing itself of the advantages to be derived from this new agent, by employing it in her navy and army, and in other public institutions, without compensating the discoverer, and that too, after having issued a patent guaranteeing to him the full and exclusive privileges and rights accruing from his discovery. In view of these considerations, and of the fact that although nearly six years have elapsed since this discovery, no pecuniary benefits have been derived therefrom by the discoverer, and looking, also, to what is just and right from a great government to the greatest benefactor of the human race of the present age, it is very desirable that his award should be no longer delayed.

The object of this communication, therefore, is to urge upon your consideration the practicability and propriety of attaching the bill above referred to, to the "naval appropriation bill" for the ensuing fiscal year.

For your further information in regard to the use of this agent in the army and navy, I enclose copies of letters from the Surgeon General of the Army, and from the Chief of the Bureau of Medicine and Surgery of the Navy, (see pages 82 and 86,) which

FEBRUARY 19, 1847.

I concur in the foregoing opinion entirely; entertaining no doubt that Dr. Morton's discovery is a new and useful art, and, as such, the proper subject of a patent.

DANIEL WEBSTER.

I have examined the question of the patentability of Dr. Morton's discovery of the anæsthetic powers of sulphuric ether, and its applicability to surgical operations, and entertain no doubt as to the validity of the patent, or of his exclusive title thereto.

J. M. CARLISLE, *Washington.*

**Extract of a letter dated Patent Office, Washington, November 16, 1846.*

It will of course be a source of great pecuniary profit. It must of course, come into general use, and licenses at moderate rates will produce a large revenue.

EDMUND BURKE,
Commissioner of Patents.

may be useful to you, in case you deem it proper or necessary to communicate on this subject with either the Secretary of War or of the Navy.

Very respectfully, your obedient servant,

W. H. BISSELL.

HON. FRED. P. STANTON, *Chairman Committee on Naval Affairs,
House of Representatives.*

Upon the receipt of the letter from the chairman of the Select Committee upon the memorial of Dr. Morton, Mr. Stanton addressed the following letter respectively to the Secretaries of War, Navy and the Treasury :

WASHINGTON, June 7, 1852.

SIR : I have the honor to transmit to you the enclosed communication from the Hon. W. H. Bissell, with the copies of letters from the Chief of the Bureau of Medicine and Surgery of the Navy, and the Surgeon General of the Army, and other documents therein referred to, all of which relate to the memorial of Dr. William T. G. Morton, asking remuneration from Congress for the discovery of the anæsthetic properties of sulphuric ether.

I concur in most of the views and opinions expressed by Col. Bissell as to the propriety and justice of compensating one who is so eminently entitled to the gratitude not only of his countrymen, but of the world at large, especially when Dr. Morton presents himself as the sole patentee of the discovery, and seeks, on condition of the surrender of his patent, remuneration for the benefits which are alleged to have been received therefrom by the Government, through its constant use in the army and navy during the war with Mexico,* and up to the present time. But in order to comply with Col. Bissell's suggestion, by submitting the matter to the Committee on Naval Affairs of the House of Representatives, I deem it appropriate and necessary to procure the views of the department in an official form.

* It is impossible not to perceive that the fact of the government having disregarded Dr. Morton's patent, and appropriated his discovery to the public service without compensation, was attended with consequences far more injurious to his rights than the mere neglect or refusal to compensate him for the use of his property. Nothing could have struck more fatally at the validity of his patent, in public opinion, than the open infraction of it by the very Government from whom it had been purchased. Its direct tendency and practical effect, were to proclaim to the public that the patent was no obstacle in the way of the use of the discovery, without the license of the patentee. Accordingly it is a fact which has been made evident to the committee by a comparison of facts and other evidence, that although numerous sales were made by Dr. Morton prior to the public announcement that the use of ether had been adopted in the public service, (New York Herald and other papers,) not a single application was made to him after that fact became generally known.

Supposing that you will concur in the views expressed by the chiefs of the Medical Corps of the Army and Navy, in the concluding paragraphs of their communications on the subject, I do not doubt that you will give the proposition of the Hon. Mr. Bissell a fair and liberal consideration.

I am, very respectfully, your obedient servant,
FRED. P. STANTON.

The following replies have been received :

TREASURY DEPARTMENT,
June 25, 1852.

SIR: I have the honor to acknowledge the receipt of your letter of the 17th instant, covering copies of a communication from the Hon. W. H. Bissell, of a letter from the chief of the Bureau of Medicine and Surgery of the Navy, and of a letter from the Surgeon General of the Army, with certain printed matter, all relating to the memorial of Dr. Wm. T. G. Morton, asking remuneration from Congress for the discovery of the anæsthetic properties of sulphuric ether.

An attentive examination of these several documents has satisfied me that sulphuric ether and tincture of chloroform are very generally used in the army and navy of the United States,* as anæsthetic agents; and the decided testimony borne to the merits of these ethereal preparations by the chief of the Bureau of Medicine and Surgery of the Navy, and the Surgeon General of the Army, leaves no doubt upon my mind as to their great value in

** Extract from a report of the Surgeon General to the Secretary of War.*

"During the three years immediately preceding, and the three years of peace subsequent to the Mexican war, the average annual number of wounds and injuries treated in the army has been 2,592." * * * "These agents (ether and chloroform) may be useful in all the amputations, in many of the fractures not requiring amputation, in a number of luxations, gunshot wounds, and other injuries requiring an operation; also in a number of diseases, such as strangulated hernia, calculus, hæmorrhoids, fistulas, tumors, &c., requiring the knife, including cases of delirium tremens, and occasionally a case of parturition."

Dr. Richard H. Coolidge, of the Surgeon-General's Office, says: "I have examined the reports of sick and wounded from the army during the recent war with Mexico. I find that the number of gun-shot wounds reported, amounts to 3,949, and that of all other wounds and injuries, to 5,392, making a total of 9,881; which number probably falls far short of what actually occurred."

Extract of report of Bureau of Medicine and Surgery to the Secretary of War.

"The number of wounds and injuries of all kinds requiring medical treatment in the naval service during the year 1850 was 1,379."

Neither of the above reports includes wounds and injuries treated in the fifteen U. S. Marine Hospitals.

medical and surgical practice. In addition to the evidence thus afforded in their favor, I may mention the fact that these agents now form a part of the regular medical supply to the marine hospitals of the United States, and that they are employed therein with very general success.

Regarding the discovery of the anæsthetic properties of sulphuric ether, as, in the language of Surgeon General Lawson, "one of the most important and valuable contributions to medical science, and to the relief of suffering humanity, ever made," I concur entirely with Col. Bissell and yourself, as to the propriety and justice of liberally compensating the patentee, who has not at any time received pecuniary advantage* from his discovery, and who now appeals to the Legislature of his country, on condition of the surrender of his patent for the benefit of mankind, for proper remuneration in lieu of the gains that he would have derived had he been protected in the use of the rights conferred upon him by letters patent of the government. I therefore recommend that such reasonable and liberal sum, as the committee of which you are chairman may in their discretion determine upon, be reported as a *national compensation* to Dr. Morton, and that

* BOSTON, April 20, 1852.

Dr. W. T. G. MORTON: *Dear Sir:* As by the terms of the agreement made between yourself and me on the 30th day of October, 1846, I am required as often as once in six months to render you an account of the net profits resulting from sales of certain patents, etc, as will appear by reference to said agreement. I have now to inform you, and do inform you, that up to this date, April 2, 1847, I have received no net profits on account of any, and therefore can render you no further account than this, nor pay to you any moneys resulting from any net profits received.

Yours, respectfully,

R. H. EDDY.

[*Extract from a letter written by Caleb Eddy, Esq., of Boston, to Hon. Robert C. Winthrop, Speaker of the House of Representatives 30th Congress.*]

"To my knowledge he has spent large sums of money, and I think deserves some consideration in return."

[*Extracts from letters written in 1848, to the Trustees of the Massachusetts General Hospital, by B. F. Brooks, an eminent lawyer, and Mr. Joseph Burnett, merchant, both of Boston.*]

"I have gone somewhat into detail, that you may see the nature of Dr. Morton's embarrassments. They have grown out of his efforts in a cause which has resulted in a great public good, and he deserves a better fate than to be left to sink under them.

"Yours truly,

"BENJAMIN F. BROOKS."

"And I am satisfied that he has been a loser of several thousand dollars, directly or indirectly, in consequence of his labors devoted to this object.

"JOSEPH BURNETT."

the same be attached, as proposed by Col. Bissell, to the "naval appropriation bill" for the ensuing fiscal year.

I have the honor to be, very respectfully, your obedient servant,

THO. CORWIN,

Secretary of the Treasury.

HON. FREDERICK P. STANTON,

Chairman Naval Committee House of Representatives.

WAR DEPARTMENT,

Washington, June 21, 1852.

SIR: I have received your letter of the 7th instant, enclosing sundry documents relating to the memorial of Dr. William T. G. Morton, who seeks remuneration from the Government for the discovery of the anæsthetic properties of sulphuric ether.

In reply I beg leave to state that I have no information on the subject of this discovery other than that which I have derived from public rumor and from the documents you enclose, it being exclusively a professional question. All the information which this department could furnish the committee is contained in the letter from the Surgeon General, which is among the papers you enclose.

Judging from this information, there can be but little doubt that this discovery is one of the most valuable contributions that science has ever made to the cause of humanity.

I do not know what the practice of the Government has been in regard to rewarding individuals for inventions or discoveries made by them,* or, at least, compensating them for

* *List of Patents purchased and used in the Army of the United States.*

Thomas Blanchard.—For the use of several machines for turning or cutting irregular forms, constituting in the whole what is generally known as the Gun-stock Turning Machine, with the several improvements for the use of it, and in connection with this invention there has been paid to Mr. Blanchard by this Department, for the privilege of using the same, \$18,921 50.

J. H. Hall —For the right to make and use patent breech loading rifle and carbine, and all the machinery for making the same, there has been paid to Mr. Hall and his heirs, the sum of \$37,553 32.

Dr. E. Maynard, March 20, 1845.—For the right to make and use his improved lock and percussion priming for small arms, and to apply the same to 4,000 muskets, there has been paid to Dr. Maynard, \$4,000.

The right to use the invention and apply the same to a greater number of arms at a reduced scale of prices has been secured, and may be used if desirable, as follows, viz: For 10,000 muskets, \$7,500; for 20,000 muskets, \$10,000; for 100,000 muskets, \$25,000; any greater number at a price to be agreed upon, not exceeding 25 cents for each musket.

J. B. Hyde, Dec. 1846.—For the right to make and use Hales's patented war rocket to an unlimited extent for the military service, \$10,000.

S. Mower and W. H. Scoville, attorneys of P. W. Gates, Sept. 5, 1848.—For the right to make and use in all establishments of the Ordnance Department Gates' patent dies for cutting screws, \$750.

Long's Bridge Patent.—For the Bridge patent privilege there has been paid \$850.

the use of them in the public service, [see pages 134 and 143,] but I do not hesitate to say that if it has been the practice of

Mitchell's Screw Pile.—For Sand Key Lighthouse, \$1,700. For Brandywine Lighthouse and Ice-breaker, \$2,400.

Boettcher's Fuze.

Stevens's Shell.

List of Patents purchased and used in the Navy of the United States.

Stevens' "Cut-off."—For right to use two on Mississippi or other steamer during continuance of patent, \$2,500; for right to use on Saranac, \$2,700.—Total, \$5,200.

Sickell and Cook's "Cut-off."—For right to use on Michigan, \$3,000; on Water Witch, \$750; on Gen. Taylor, \$500; on Powhatan, \$6,681 25; on San Jacinto, \$4,418; on Fulton, \$1,780 98; on Princeton, \$2,700; on Alleghany, \$3,927.—Total, \$23,757 23.

George W. Taylor's "Marine Camels."—For one set for first class sloop-of-war, with right to use said camels during continuance of patent, \$27,500.—Total, \$27,500.

West and Thompson's "Clasp Coupling."—For right to use on Susquehanna, Saranac, San Jacinto, and Powhatan, \$1 20 per inch diameter of attached vessel.

Worthington and Baker's "Steam Pump."—For one for San Jacinto, \$500; two for Powhatan at \$500, \$1,000; two for Princeton at \$600, \$1,200; two for Alleghany at \$600, \$1,200; one for Water Witch, \$400; one for Vixen, \$400; one for Fulton, \$500; two for Mississippi, \$1,100; two for Saranac, \$1,000; two for Susquehanna, \$1,000; article manufactured and patent included in each case.—Total, \$8,300.

Worthington and Baker's "Percussion Water Gauge."—For three for Princeton at \$80, \$240; three for Alleghany at \$80, \$240; four for Powhatan at \$60, \$240; four for Mississippi at \$60, \$240; one for Water Witch, \$60; one for Vixen, \$60; two for Fulton at \$60, \$120; three for Saranac at \$60, \$180; article manufactured and patent included in each case.—Total, \$1,380.

Copeland's "Self-Acting Blow."—For right to use and make for Fulton, San Jacinto, and Powhatan, \$1,270; for Vixen, \$144; for Saranac, \$480.—Total, \$1,894.

Sewell's "Salinometers."—For seven for Alleghany at \$75, \$525; seven for Princeton at \$75, \$525; four for Susquehanna at \$75, \$300; four for Powhatan at \$75, \$300; three for Saranac at \$75, \$225; four for Fulton at \$75, \$300; one for Water Witch, \$75; one for Vixen, \$75; four for Mississippi at \$75, \$300; three for San Jacinto at \$75, \$225; article manufactured and patent included in each case.—Total, \$2,850.

Allen and Noyes' "Metallic Packing."—For right to use on Powhatan, Mississippi, and Michigan, \$3,400; on Saranac, \$1,250; on Princeton, \$900; on Alleghany, \$900; on Water Witch, \$700; on Vixen, \$700.—Total, \$7,850.

Pirsson's "Condenser."—For right to use on Alleghany, inclusive of his personal attendance while manufacturing, \$1,000.—Total, \$1000.

Lamb and Summer's "Sheet-Flue Boiler."—For right to make and use on Princeton and Alleghany, \$5,085; on Water Witch and Vixen, \$1,800.—Total, 6,885.

B. Crawford's "Steam Thermometer."—For one to be used at the Foundry Washington Navy Yard, inclusive of patent, \$100.—Total, \$100.

Lt. Hunter's "Submerged Wheel."—For right to use on Alleghany, (not now used,) \$10,320.—Total, \$10,320.

Francis' "Life Boat."—For one for Mississippi, \$520; one for Vandalia, \$520; one for Vincennes, \$540; one for Saranac, \$520; one for Alleghany, \$540; one for Copper Cutter, \$540; one Dingy for Washington Yard, \$50; one Dingy, \$126; one Dingy for Alleghany, \$126; one Copper Cutter, \$540; manufactured article and patent included in each case.—Total, \$4,022.

Congress to grant such rewards or compensation, Dr. Morton's claim is fairly entitled to the most liberal consideration.

Very respectfully, your obedient servant,

C. M. CONRAD,

Secretary of War.

HON. FREDERICK P. STANTON,

Chairman Committee on Naval Affairs, House of Reps.

NAVY DEPARTMENT, BUREAU OF MEDICINE AND SURGERY,
June 29, 1852.

SIR: I have had the honor to receive your letter of yesterday's date, in relation to the memorial of Dr. W. T. G. Morton, asking of Congress remuneration for the discovery of the anæsthetic properties of sulphuric ether, and calling upon me for a statement as to the basis on which the claim is founded, with an estimate of the amount to which, in my opinion, he is entitled, on the score of the benefits and advantages resulting from its use in the naval service.

As the views of the Bureau in regard to the importance of this discovery have been already expressed in a communication to Dr. Morton, I beg leave to extract so much of it as relates to this branch of the subject.

"In reply to your inquiry as to the importance attached to the late discovery of etherization, by the Medical Corps of the Navy, it gives me pleasure to express the high sense they entertain of its utility, not only in surgical practice, but as a powerful agent in many painful affections which have resisted the ordinary remedies. This opinion is strengthened by the concurrent testimony of the ablest civil practitioners of our own country, with the emphatic endorsement of its value by the best British and continental surgeons.

"The gist of this discovery consists in finding that nervous perception is suspended under the influence of the etherial inhalation; and while suspended, that the patient is unconscious of pain under the operation of the knife. In addition to the great benefit derived from its use, in alleviating pain, it has a decided effect in diminishing mortality. Its advantage in this respect appears to be in saving the system from the severe shock and nervous exhaustion which attend most of the graver surgical operations, and which of themselves often prove fatal.

"It dispels the fear of pain which formerly prevented many from submitting to an operation, or induced them to defer it until too late.

"It enables the surgeon, also, to operate coolly and effectually, undisturbed by the cries and struggles of the patient, which sometimes unnerve the steadiest hand, and render abortive the best directed efforts."

In regard to the grounds on which Dr. Morton bases his claim to pecuniary remuneration from the Government, I would state that, from the peculiar nature of the discovery, it is impossible to protect the inventor in the exclusive advantage of it by letters patent. The novelty of the discovery consists in the new application of an old remedial agent, and the privilege of using it, on the part of the profession at large, cannot be practically curtailed by statutory enactment. The inventor is thus deprived of the pecuniary advantages of his discovery, and is justified in appealing to the Government, which also largely avails itself of the benefits derived from it, for relief.

It will be difficult to estimate the amount which the inventor may reasonably ask of the Government in consideration of the advantages attending its use in the two services. For the reasons above mentioned, the cost of the ether itself cannot enter as an element into the calculation, and the fairest estimate, I conceive, might be more nearly approximated by the amount one would be willing to give to be rescued from impending death, or to be relieved from urgent and intolerable pain.

I would express the opinion, however, that the sum of *one hundred thousand dollars* proposed by the Select Committee of the House of Representatives as a compensation to the inventor, is nothing more than a fair equivalent for the immense advantage resulting to the Government and country from this important discovery.

I am, very respectfully, your obedient servant,

THOS. HARRIS,

Chief Bureau of Medicine and Surgery.

HON. WM. A. GRAHAM, *Secretary of the Navy.*

Extract of a letter from John Watson, M. D.

NEW YORK HOSPITAL, January 10, 1852.

The wonderful action of ether and the other anæsthetics in alleviating suffering, and in overcoming spasm and muscular resistance during the most protracted, difficult, and delicate surgical embulations, is sufficient to place them among the most useful discoveries that ever have been effected, *and to entitle Mr. Morton, who first demonstrated the anæsthetic properties and use of sulphuric ether, to the gratitude of his countrymen, and to give him rank among the benefactors of the human race.*

I remain, with becoming respect,

JNO. WATSON.

GEORGE NEWBOLD, Esq.

WEST POINT, NEW YORK, February 14, 1852.

Both ether and chloroform are used as anæsthetic agents in the army.

I am, sir, very respectfully, your obedient servant,

JNO. W. CUYLER,

Surgeon U. S. Army.

HON. W. H. BISSELL, Chairman, &c.

ST. LOUIS, MO., February 12, 1852.

Ether was first used by the army early in 1847, during the Mexican war, more particularly on General Scott's line, as at that period a complicated and fragile inhalator was employed for its use; of the number of instruments sent to the army, two, intended for the Rio Grande line, were broken in the transportation; hence the ether was little used, if at all, on that line. The chloroform was early introduced in the army, not soon enough to have had experience of it or chloric ether during the war. It is now one of the principal articles of our medical supplies, and is in general use.

The chloroform is as highly esteemed by the medical officers of the army and navy as by the surgeons, in general practice; it is certainly an inestimable boon to suffering humanity. To my

knowledge no important surgical operation, including reduction of dislocations, fractures, &c., is performed in the army without its being employed.

I have the honor to be, very respectfully, your obedient servant,

E. H. ABADIE,

Assistant Surgeon U. S. Army.

Hon. W. H. BISSELL, *Chairman, &c.*

FORT ADAMS, R. I., *February 10, 1852.*

I have no doubt their effect is greatly to lessen mortality in surgical operations.

Most respectfully, your obedient servant,

R. S. SATTERLEE,

Surgeon U. S. Army.

Hon. W. H. BISSELL, *Chairman, &c.*

WEST POINT, N. Y., *February 12, 1852.*

Says it was introduced into the Mexican war. I shall consider it the greatest boon of the soldier.

J. SIMONS,

Asst. Surgeon U. S. Army.

ATHENS, GEORGIA, *February 9, 1852.*

I reply, that in the navy of the United States, to my knowledge, both ether and chloroform are used as anæsthetic agents.

That the discovery is of American origin and due to Dr. Morton, seems so well established and believed, that it is needless for me to add anything on this head. The memory of such a man should be written "*in ærea perenes*;" and it would reflect honor upon his country to reward his labors while living. Such a man can proudly exclaim with the immortal Tycho Bache, "I have not lived in vain."

A. A. FRANKLIN HILL,

Asst. Surgeon U. S. Army.

NEW YORK, *January 3, 1852.*

I would state that sulphuric ether and tincture of chloroform are among the medical supplies furnished for the use of the army.

T. G. MOWER,

Surgeon U. S. Army.

NEW YORK, *January 31, 1852.*

Chloroform and sulphuric ether are, I believe, furnished generally to the army. * * * The effect of these agents is wonderful and most valuable in lessening pain and suffering.

ROBERT MURRAY,
Asst. Surgeon U. S. Army.

PHILADELPHIA, *January 27, 1852.*

And so far as my observation extends, (having witnessed a large number of most painful operations under the influence of ether,) I can but consider the discovery of the properties of these agents as the greatest boon that poor suffering humanity has ever received.

W. WHETON,
Surgeon U. S. Army.

FORT WASHINGTON, INDIANA, *January 27, 1852.*

Medical officers are supplied with chloroform for the use of the army. * * * I have used it myself.

LEWIS A. EDWARDS,
Surgeon U. S. Army.

GERMANTOWN, *January 26, 1852.*

Some of these agents are always added to the requisitions of medical surgeons.

O. J. WESTER,
Asst. Surgeon U. S. Army.

FORT MOULTRIE, CHARLESTON HARBOR, S. C.,
February 19, 1852.

Sulphuric ether was used in the General Hospital at Vera Cruz, Mexico, in the summer of 1847. I had charge of that hospital.

J. B. PORTER, M. D.,
Surgeon U. S. Army.

PLATTSBURGH BARRACKS, N. Y.

I have used ether, as before stated, for many years.

J. MAKLIN,
Asst. Surg. U. S. Army.

JEFFERSON BARRACKS, MO.

C. A. Finley, Surgeon U. S. Army, uses it and says: "As an alleviator of human suffering, I consider it the most important discovery that has been made since the days of Jenner."

FORT MEADE, FLORIDA.

Jona. Letturman, Assistant Surgeon U. S. Army, says he uses them in "diseases involving the nervous system—in allaying the vomiting of an irritable stomach—in cramp colic—and in delirium tremens. Its administration in all was followed by complete relief. In a case of delirium tremens, in which all the ordinary remedies were used without effect, I attribute the saving the patient's life to the administration of chloroform."

FORT SCOTT, MISSOURI.

Jos. K. Barnes, Assistant Surgeon U. S. Army, says, "both ether and chloroform have been, and continue to be used as anæsthetic agents by myself and others in army practice. The use of chloroform, under my immediate notice, has been confined to its anæsthetic effects during surgical operations of some magnitude, in which freedom from pain on the part of the patient was considered conducive to safety and celerity in operating. No medical officer is likely to be without them."

FORT DODGE, IOWA.

Charles C. Keeney, Assistant Surgeon U. S. Army, says "ether and chloroform are both used as anæsthetic agents in the army. They are used to a great extent in neuralgic diseases, and in amputations of the extremities, and extirpation of various tumors—all with remarkable good effect in annulling sensation and voluntary motion. Where I have been stationed they have been used to a great extent."

FORT RIPLEY, MINNESOTA TERRITORY.

J. Frazier Head, assistant Surgeon U. S. Army, uses them, and says, "as in many important operations in surgery the nervous shock, resulting from the pain experienced, is an element of great importance in determining the issue of the case, an agent which removes this element with comparative safety, and no bad influence to counterbalance this advantage, cannot fail to diminish the mortality attendant upon such operations."

U. S. NAVAL HOSPITAL, PORTSMOUTH, VA.

N. C. Barrabino, Surgeon U. S. Navy, says ether and chloroform is used both in the army and navy, and is decidedly of the opinion that their use lessens morality.

FORT MCINTOSH, LOREDO, TEXAS.

G. Pierce, Assistant Surgeon U. S. Army, uses them, and says, "I am inclined to form a very high opinion of chloroform as a remedial agent."

FORT WEBSTER, NEW MEXICO, *May 27, 1852.*

SIR: It gives me pleasure, in compliance with your request, to enclose to you the accompanying table. My experience in the larger amputations is, you will perceive, small, but favorable in the highest degree to the good effects of etherization. Wishing your success,

"I am, very respectfully, your obedient servant,
WILLIAM A. HAMMOND,
Asst. Surgeon U. S. A.

Dr. W. T. G. MORTON, *Washington, D. C.*

FORT DUNCAN, TEXAS.

All my experience regarding anæsthetic agents has been in parturition, and I can assure you that the effect has always exceeded my most sanguine hopes.

GEO. E. COOPER,
Asst. Surgeon U. S. A.

BALTIMORE, *February 2, 1852.*

That the discovery of an agent which assuages or annihilates the severe pain *often* experienced in diseases, *necessarily* inflicted to a greater or less degree in operations on the human body, and *generally* incident to the condition of the female in the act of parturition, should, at the very first blush, commend itself to the acceptance of all mankind, and that the discoverer of such an agent should be regarded as having conferred the highest earthly boon on afflicted humanity, are propositions too obvious to need the slightest argument to enforce them.

Whether ether or chloroform is used in the army for anæsthetic

purposes, I have no means of knowing, but it is certainly so used in the practice of the navy.

I am, sir, respectfully, your obedient servant,

J. BEALE, M. D.

Surgeon U. S. Navy.

To Hon. W. H. BISSELL, *Chairman, &c.*

NAVAL RENDEZVOUS, NEW YORK, *February 7, 1852.*

By most of the medical profession these agents are highly appreciated, and it is believed that Mr. Morton, who made public his discovery of the anæsthetic power of ether, is deserving a public reward.

I have the honor to be, very respectfully,

Your obedient servant,

D. S. EDWARDS,

Surgeon U. S. Navy.

To Hon. W. H. BISSELL, *Chairman, &c.*

ERIE, PENN., *January 30, 1852.*

I should hold myself bound to use sometimes the one, sometimes the other, in various conditions of disease and injury.

WM. MAXWELL WOOD,

Surgeon U. S. Navy.

NORFOLK, *February 4, 1852.*

Chloroform or sulphuric ether are used in the naval service as an anæsthetic agent.

They are principally used in the naval service to lessen pain, and enable a timid or excitable patient to undergo an operation.

JAMES CORNICK,

Surgeon U. S. Navy.

PHILADELPHIA.

That they are used in the army and navy. I think they diminish mortality.

DANIEL EGBERT,

Surgeon U. S. Navy.

PHILADELPHIA.

I have used chloroform as an anæsthetic agent in my practice in the navy.

J. HOPKINSON,
U. S. Navy.

U. S. SHIP PENNSYLVANIA, NORFOLK, VA.

D. B. Phillips, Assistant Surgeon United States Navy, uses them, and speaks of them in the highest terms.

ANNAPOLIS, MD.

My experience has been, as yet, limited to some sixteen surgical cases. In preventing the sufferings of surgical operations, I consider chloric ether entitled to rank as the crowning medical discovery of the day. The cases in which I used it were for the removal of cancerous breasts, and large tumors situated in delicate parts. I should strenuously recommend its introduction on board of our vessels of war.

NINIAN PINKNEY,
Surgeon U. S. Navy.

U. S. NAVAL HOSPITAL, CHELSEA.

They are both used as anæsthetic agents in the navy.

S. RUDENSTEIN,
U. S. Navy.

U. S. SHIP PENNSYLVANIA, NORFOLK, VA.

Chloroform is used in the navy. Its use has been confined to amputations and other painful and protracted surgical operations, and with decided benefit.

D. B. PHILLIPS,
Assistant Surgeon U. S. Navy.

PHILADELPHIA.

Ether and chloroform are both employed as anæsthetic agents in the United States Navy. Diminish mortality in a very notable proportion.

JOHN O'CONNOR BARCLAY,
Passed Assistant Surgeon U. S. Navy.

U. S. NAVY YARD, GOSPORT, VA.

Samuel Barrington, Surgeon United States Navy, says they are used in the army and navy.

U. S. STEAM FRIGATE SAN JACINTO, GOSPORT, VA.

I have witnessed the use of ether and chloroform as anæsthetic agents in the navy. These agents have been very generally employed in a great variety of cases, and with favorable effect.

JOHN H. WRIGHT,

Passed Assistant Surgeon U. S. Navy.

U. S. NAVAL RENDEZVOUS,

BOSTON, January 30, 1852.

I have seen chloroform used in the navy. * * * I would use it in all surgical operations when it was desirable to prevent pain.

GEO. MALTSBY, U. S. N.

U. S. MARINE HOSPITAL, ST. LOUIS.

My impression is, that they are used in the army and navy, to a considerable extent; my impression being derived from an acquaintance with many of the medical staff of those branches of the public service, from their publications in the medical journals of the country, and from their known disposition to keep pace with the progress of science. They are regarded as one of the greatest gifts that science could lay on the altar of humanity. They have now been used on perhaps millions of persons, indiscriminately, in both hemispheres.

CHAS. A. POPE, U. S. N.

U. S. MARINE HOSPITAL,

NEW ORLEANS, Feb. 17, 1852.

As regards the use of anæsthetic agents, we have invariably employed chloroform in operations; also for perineal section, for stricture of the urethra, and minor surgery, without any unpleasant results, and I think with more favorable convalescence.

P. B. McKELVY,

Principal Physician and Surgeon.

Dr. J. H. Hopkinson, U. S. navy, uses chloroform.

Wm. Lowber, U. S. navy, says ether and chloroform are used.

John H. Wright, passed assistant surgeon U. S. navy, uses them.

D. B. Phillips, assistant surgeon, U. S. navy, has used them.

John L. Fox, surgeon U. S. Naval Hospital, Chelsea, says he has used them.

John L. Burt, U. S. navy, U. S. Naval Hospital, N. Y., uses chloroform.

Geo. Blacknall, surgeon U. S. navy, Norfolk, Va., says they are used.

Wm. A. Nelson, M. D., U. S. navy, says it is used in the navy.

D. S. Edwards, surgeon U. S. navy, says ether and chloroform are used in the navy.

Charles S. Tripler, surgeon U. S. army, Fort Gratiot, Mich., uses them.

R. O. Wood, surgeon U. S. army, says it has been used in the army.

A. S. Wotherspoon, assistant surgeon U. S. army—Surgeon General's Office—bears testimony to its high value.

Josiah Simpson, assistant surgeon U. S. army, Fort Wood, New York harbor, uses ether.

Dr. Macklin, assistant surgeon, U. S. army, uses ether.

L. D. Williams, Havre de Grace, says anæsthetic agents are used.

Ebenezer Swift, surgeon U. S., Fort Martin Scott, Texas, uses anæsthetic agents.

Dr. J. N. Schoolfield, Marine Hospital, Norfolk, Va., uses anæsthetic agents.

Dr. Henry S. Leveret, U. S. Marine Hospital, Mobile, uses³ anæsthetic agents.

Dr. William Ingalls, U. S. Marine Hospital, Chelsea, Massachusetts, uses anæsthetic agents.

Dr. M. L. Hewitt, U. S. Marine Hospital, Cleveland, Ohio, uses them.

Alexander H. Hassier, Texas, assistant surgeon U. S. army, uses anæsthetic agents.

Thomas H. Williams, assistant surgeon U. S. army, Fort North, Texas, speaks highly of them.

T. C. Madison, U. S. army, uses anæsthetic agents.

Extract of a letter from Henry J. Bowditch, Physician of the Massachusetts General Hospital.

Boston, January 4, 1852.

I presume that the discovery of the anæsthetic properties of ether, and *its practical application to Medicine*, will take a rank quite equal to that of vaccination. To no one does the world owe so much for this practical application, as to Dr. Morton. In fact I am fully convinced that had it not been for the boldness of that gentleman, the *world* to the present hour would have been ignorant of these peculiar adaptations of ether to alleviate human suffering. I say boldness *now*. In former times, however, I said *rashness*; for I believe I may say, without fear of contradiction that the medical profession, as a body, would have feared death as the result, from experiments such as are now made daily without the least fear. Dr. Morton has convinced us from error. Doubtless he received suggestions from other similar experiments, made by several individuals, but to his indomitable perseverance do we *finally* owe all the essential good which the discoverer has bestowed on man.

I hope, therefore, that Dr. Morton will receive a tribute of respect from Congress, that shall be commensurate with the great benefits that he has bestowed upon the nation.

I remain, very respectfully, yours,

HENRY I. BOWDITCH.

Hon. W. H. BISSELL.

Extract of a letter from Henry J. Bigelow, Professor in Harvard University, and Surgeon in Massachusetts General Hospital.

BOSTON, January 3, 1852.

I trust that Dr. Morton will now at last receive a substantial and liberal return for his discovery that ether can annul pain; 1. With safety—with less risk, for example, than everybody daily encounters either in walking or riding; 2. With certainty in every case.

I have the honor to be, respectfully, your ob't. servant,
HENRY J. BIGELOW.

W. H. BISSELL, *Chairman, &c.*

Extract of a letter from James Jackson, M. D., Professor Emeritus of Theory and Practice of Physic in the University at Cambridge, Honorary Member of the Royal Medico-Chirurgical Society of London, &c.

BOSTON, January 5, 1852.

"I have, nevertheless, watched the new use of ether and chloroform with great interest from the first annunciation of *this discovery by Dr. Morton*; and I will say, in general, that it would be difficult to exaggerate the benefits of these anæsthetic agents.

The great and undoubted benefits of ether are shown in surgical and obstetric practice; and I believe these are such as to entitle the discoverer of its good effects, when employed by inhalation, to a very large reward.

I am, sir, very respectfully, your obedient servant,
JAMES JACKSON.

Hon. W. H. BISSELL.

In a communication to the former committee of the House, Dr. Jackson says: "In my opinion Dr. Morton is entitled to a grant from Congress for the ether discovery, more than any and all other persons in the world."

Extract of a letter from Richard Girdler, M. D.

BOSTON, January 27, 1852.

I was present at those operations when ether was first administered at the hospital; saw its effects with admiration and astonishment, and am witness to its successful application almost every day; and hope the committee will report favorably upon the just

claims of Wm. T. G. Morton, who, I believe, is entitled to the merit of the discovery, and consequently should receive a fitting reward.

Very respectfully, sir, your obedient servant,

RICHARD GIRDLER,

Superintendent Massachusetts General Hospital.

HON. W. H. BISSELL.

Extract of a letter from George Hayward, M. D., Professor of Harvard University, and Surgeon in Massachusetts General Hospital.

BOSTON, January 8, 1852.

I cannot close this letter without saying, that I regard sulphuric ether, the agent first used by Dr. Morton, as by far the best anæsthetic agent; that I believe the world is indebted to him for its introduction into practice by proving by actual experiment, what was not before known or generally believed, that it could be inhaled with safety.

I certainly regard this discovery as one of the greatest of the age, and think that Dr. Morton is entitled to a liberal grant from our country for the benefit that he has conferred on the human race.

I am, with much respect, your obedient servant,

GEO. HAYWARD.

HON. W. H. BISSELL.

Extract of a letter from Thomas P. Jackson.

BOSTON, February 4, 1852.

I consider the discovery and introduction of sulphuric ether as an anæsthetic agent to be second to no discovery in medical science, not even to the discovery of vaccination, and that we are solely indebted for its introduction by Dr. Wm. T. G. Morton.

My opinion is that no compensation Congress can confer on Dr. Morton will equal his deserts, and I really hope that for once a deserving man may receive his recompense during his life, instead of having a monument erected over his grave. I would say, in conclusion, that I have not the slightest acquaintance with Dr. Morton, and that I believe it is the general wish of the profession in this vicinity that Dr. Morton shall receive some remuneration for the benefits he has conferred on suffering humanity.

Yours respectfully,

THOS. P. JACKSON, M. D.

HON. W. H. BISSELL.

Extract of a letter from Dr. Putnam.

BOSTON, February 14, 1852.

In regard to the estimate in which I hold it, (ether,) I cannot, perhaps, give a more satisfactory proof than by stating that, immediately after my first experiments, I insisted on Dr. Morton's acceptance of a small sum of money in acknowledgment of my personal obligation to him, and as an earnest of what I considered to be his due from the whole community.

With great respect, I am yours,

CHAS. G. PUTNAM, M. D.

To the COMMITTEE.

Extract of a letter from Augustus A. Gould, M. D.

BOSTON, January 15, 1852.

I cannot but hope that Congress will do something noble in this case. Other nations have already bestowed honors and emoluments upon those they have deemed entitled in testimonial of their appreciation of this, the greatest boon which has yet been granted to the keenest sufferings of mankind. And it is not seemly that our own nation should pass by in silence one of the greatest and most universally applicable discoveries which the world can boast of. The person or persons instrumental in bestowing it deserve substantial reward.

I have happened to know every step in the early introduction of the use of ether as an anæsthetic agent. And I am familiar with the odium, the denunciations, and the persecutions, and threatened persecutions which were so liberally showered at its introduction. They came from honest men, whose experience had led them to apprehend serious danger. But with firmness of purpose, disregard of threats, and no lack or stint of expense, the demonstration was soon complete, and all rational opposition has long since been silent; and now it is not only a subject for national pride and national gratitude, but it commands and receives the gratitude of the world.

Very respectfully, your obedient servant,

AUGUSTUS A. GOULD.

Hon. W. H. BISSELL.

Extract of a letter from Albion S. Dudley, M. D.

BOSTON, February 3, 1852.

Dr. Morton certainly was the first in this city to reveal the anæsthetic effects of the sulphuric ether to the public, and successfully introduce it into the Massachusetts Medical College, to my certain knowledge.

I have the honor to be, yours respectfully,

ALBION S. DUDLEY.

To the Hon. W. H. BISSELL.

Extract of a letter from A. L. Peirson, M. D.

SALEM, January 17, 1852.

I have toiled through five and thirty years of medical, and especially surgical practice, in a dense population, during most of the time in conscious need of some pain-destroying remedy, and I hail the discovery of the application of the properties of ether with devout gratitude to a beneficent Creator, who has vouchsafed such a blessing to suffering humanity; and with sincere thankfulness to Dr. Morton as being the efficient and fortunate agent by whose means it has been placed in the hands of the medical profession. For although the inhalation of ether, to produce intoxication, may not have been a new idea previous to October, 1846, yet Dr. Morton, at that time, partially demonstrated its safety, utility, and applicability, in making surgical operations painless, and was the procuring cause of its being now employed by all classes of medical practitioners, in taking away that dread of human nature—pain.

I have the honor to subscribe myself, very respectfully,

A. L. PEIRSON.

Hon. W. H. BISSELL.

Letter from J. F. May, Professor of Surgery, National Medical College, Washington.

WASHINGTON, February 10, 1852.

SIR: I have received your circular requesting of me an answer to the following inquiries:

1. Is ether or chloroform used as an anæsthetic agent in your Institution?
2. If used, to what extent, in what classes of diseases or of operations, and with what effect?

3. What, in your opinion, is their effect in diminishing mortality?

4. To what extent, in what classes of cases, and with what result are they used in private practice in your vicinity?

5. In what appreciation are they held by the medical faculty within your knowledge?

I reply :

1. Chloric ether is always used by me and my colleagues, as an anæsthetic agent, in every operation of any importance that is performed in the Washington Infirmary, of which Institution I am one of the surgeons.

2. For more than three years I have constantly used it, both in hospital and private practice, and it has never, in a single instance, disappointed me in producing insensibility to pain, and I have never found its administration to be attended or followed by any serious result. I have given it at all ages, from the tender infant to the old and infirm man, and from a few moments to more than an hour at a time. I have performed under its influence many of the most important and capital operations of surgery; among which I may mention lithotomy, strangulated hernia, the removal of tumors from various regions, the different amputations of both the upper and lower extremities, from the removal of a finger to disarticulation of the hip joint, &c.

3. I am perfectly convinced that the use of anæsthetic agents has greatly diminished the mortality of surgical operations, and I am prepared to say further, that I would almost as soon think of amputating a limb without previously compressing its principal artery, as to perform a difficult and dangerous operation without first putting the patient in an anæsthetic state. I consider it, in fact, so important an element to the success of the surgeon in severe and formidable operations, by preventing all shock to the system, that I think he ought to decline any operation of magnitude and danger, should he meet with a refusal on the part of the patient to be subjected to its influence. But fortunately there are few who are not only willing, but anxious to be soothed by the magic spell which, to the victim, robs surgery of nearly all its terrors, and to the surgeon brings pleasure, from the knowledge that he inflicts no pain.

4. I believe that all important surgical operations in private practice in this vicinity, are performed under anæsthetic influence, and with the results that I have already mentioned.

5. I believe that the medical faculty throughout the civilized world, where anæsthesia has been introduced, consider it to be one of the greatest boons that has ever been given to suffering man; and believing Dr. Morton to be its discoverer, I trust he

will receive from the Government a compensation commensurate with the immense benefit it has conferred upon the human race.

I have the honor to be, very respectfully, &c.,
JNO. FRED'K MAY.

Hon. W. H. BISSELL.

Extract of a letter from Alex. H. Stevens, M. D.

NEW YORK, January 5, 1852.

Without the slightest knowledge of Dr. Morton, or of any one connected, or claiming to be connected with this discovery, and without assuming that he is mainly the discoverer, *which I yet believe*, I take leave to state that the claims of scientific discoverers to reward is a strong one.

The community is taxed by patent rights for inventions to the amount of many millions annually. The men of science paying themselves a part of these taxes, and bringing to light, by their unpaid labors, scientific discoveries from which these inventions in a great measure take their rise, are left entirely, in this country, without any reward whatsoever. In Europe they are rewarded, besides that they are supported by salaries attached to their membership of scientific institutions.

In view of these considerations, and looking not only to what is just as between science and government, but what is, in a very high degree and altogether beyond the appreciation of unlearned men, expedient, as respects the interests of the government, liberal rewards should be given for unpatented discoveries.

With very great respect, I am, very truly, your ob't serv't,
ALEX. H. STEEVENS.

The Hon. W. H. BISSELL.

P. S. From an official connection with the three great hospitals in this city, embracing about 3,000 patients, I am enabled to state that anæsthetic agents are generally used in puerperal cases, in painful chronic diseases, in the reduction of fractures and dislocations, and in other capital surgical operations, many of which are rendered more successful, and not a few only practicable by their use. I consider it the greatest discovery in medicine since that of Jenner. It is to the healing art, what steam navigation, electromagnetism, and railroad travelling, are to commercial and social communications.

A. H. S.

Extract of a letter from Hugh H. McGuire, M. D.

WINCHESTER, VA.

I regard the discovery of anæsthetic agents the most important discovery made in Surgery for the last century. It is also entirely American, for although attempts have been made for a long time to destroy sensibility to surgical operations, no approximation was made to it, until it was discovered in Boston, that sulphuric ether would produce total insensibility. Now it has been the practice in all enlightened countries to reward important discoveries in a very liberal manner; I do hope that an American Congress will not fail to follow the example. The use of these agents have become so common and general throughout Europe, that a late distinguished Professor, of Philadelphia, during a visit to Europe, was constantly asked, if it was possible any surgeons in America could be found opposed to them. I have no hesitation in stating that not only is pain avoided, but many lives saved by their use, for the nervous shock, in consequence of serious operations, not unfrequently ends in death. This is avoided by anæsthesia. * * *

It would be just and proper to make him a liberal pension for it. It would not only be an incentive and stimulus to further discoveries in this extensive field of science, but redound to the credit of the Government, here and abroad.

Very truly, your friend,

HUGH H. MCGUIRE,

Hon. CHAS. J. FAULKNER.

Prof. Surgery.

Jacob Bigelow, M. D., President of the Academy of Arts and Sciences, Professor in Harvard University, and Physician to Massachusetts General Hospital, in a letter to Hon. W. H. Bissell, says: "It is considered by myself, and by the more intelligent part of my medical friends, as the most important medical discovery of the present age."

In an article published in the Medical and Surgical Journal of July 7, 1847, he says: "In the case of Dr. Jackson, if he did make the discovery in 1842, as asserted, or even later, he stands accountable for the mass of human misery which he has permitted his fellow-creatures to undergo, from the time when he made his discovery to the time when Dr. Morton made his. In charity, we prefer to believe, that, up to the latter period, he had no definite notion of the real power of ether in surgery, having seen no case of its application in that science."

Letter from Professor Simpson, the discoverer of Chloroform.

EDINBURGH, November 19, 1847.

MY DEAR SIR: I have much pleasure in offering, for your kind acceptance, the accompanying pamphlet. Since it was published we have had various other operations performed here, equally successful. I have a note from Mr. Liston, telling me also of its perfect success in London. Its rapidity and depth are amazing.

In the Monthly Journal of Medical Science for September, I have a long article on etherization, vindicating your claims over those of Jackson.

Of course the great thought is that of producing insensibility; and for that the world is, I think, indebted to you.

I read a paper lately to our society, showing that it was recommended by Pliny, &c., in old times.

With very great esteem for you, allow me to subscribe myself,

Yours very faithfully,

J. Y. SIMPSON.

Dr. W. T. G. MORTON.

Extract of a letter from J. Parkman, M. D., of Boston.

Life may also be saved from the more ready submission of the patients to necessary operations, since they can be assured that they are painless. And inasmuch as pain and spasm do destroy life, it is fair to presume that agents relieving these must diminish mortality.

In private practice in this city anæsthetic agents are in universal use in all surgical operations, and also in *all the operations of midwifery*. They are in quite general use in all diseases requiring an antidote to pain and spasm, as one of the means to allay them, and some practitioners use them in all cases of child-birth.

I remain, very respectfully,

J. PARKMAN,

One of the Surgeons of the Mass. Gen. Hospital.

Hon. W. H. BISSELL.

Extract of a letter from S. D. Townsend, M. D., of Boston.

It has been used almost daily for diseases of a spasmodic and painful character, and in all surgical operations, with the effect of relieving pain and annihilating perfectly all suffering in surgical operations. I believe it diminishes mortality, by relieving spasmodic diseases, and preventing the severe shock of surgical operations. In private practice it has been used to the same ex-

tent, and in the same classes of cases, and with the same result as occurring in the Massachusetts General Hospital, with the addition of cases of midwifery, in which it prevents the sensation of pain, without retarding delivery.

Very respectfully, your obedient servant,

S. D. TOWNSEND,

One of the Surgeons of the Mass. Gen. Hospital.

Extract of a letter from S. Mason Warren, M. D., of Boston.

Sulphuric ether and strong chloric ether, are used at the Massachusetts General Hospital. Chloroform is not used.

The above substances are used in almost every surgical operation, and in many diseases attended with severe pain. I have seen them exhibited in more than two thousand cases, including hospital and private practice, and never with any bad result. By preventing the severe shock to the system in surgical operations, it is probable that they have an influence in diminishing mortality. In surgical operations in private practice, I have used the chloric and sulphuric ethers, principally the former; also in many obstetric cases, and to relieve suffering in painful diseases, often as a substitute for opium; and I believe them to be used by most other practitioners of Boston and the vicinity, for the same purposes, and with a satisfactory result.

Very respectfully, yours,

S. MASON WARREN,

One of the Surgeons of the Mass. Gen. Hospital.

Hon. W. H. BISSELL.

Extract of a letter from John Ware, M. D., of Boston.

Their most important use is in the practice of midwifery. They are employed very generally in severe, protracted, and dangerous cases. My belief is, from my own experience, and from the concurrent testimony of all practitioners with whose opinions I am conversant, that they not only diminish, and sometimes annihilate, the suffering which is attendant on parturition, but that they lessen also the dread of it, which is so strong a feeling in the minds of females; and further, that they render patients less liable to the subsequent ill effects of severe labors, especially those in which the use of instruments are necessary.

I have employed or seen them employed in asthma, in croup, in convulsions of children and adults, in neuralgia, in the spas-

modic affections of fever, and in many other cases of a more indefinite character, into the description of which it is not now necessary to your purpose to enter. I have also employed them with signal advantage to alleviate the sufferings which occur toward the close of life, or in the act of death, in patients who have irrecoverable diseases.

Their introduction is regarded by all practitioners within my circle of acquaintance, whose opinions I should regard as of value, as the most important discovery in practical medicine and surgery which has been made since that of vaccination by Dr. Jenner.

I am, very respectfully, your obedient servant,
JOHN WARE.

Hon. W. H. BISSELL.

Extract of a letter from J. S. Jones, M. D., of Boston.

In the private practice in my vicinity the use of these anæsthetic agents is quite common in dentistry, in midwifery, and scarcely any operation of surgery is performed without its use. The reduction of dislocations and the adaptation of fractured bones, are materially aided by the effects of ether, besides the freedom from suffering enjoyed by the injured person when under its effects.

Respectfully, yours,
J. S. JONES.

Hon. W. H. BISSELL.

Extract of a letter from Z. B. Adams, M. D., of Boston.

It is almost uniformly used, both in public and private practice, in dentistry, in midwifery, and in all surgical operations; also to cause muscular relaxation in the reduction of hernia; has been eminently successful in cases of convulsions after delivery, and in alleviating excruciating pain caused by the passage of calculi through the ureters. It is an exceedingly rare thing to hear of of any dangerous or even serious effects from the use of either ether or chloroform. The good effects are almost incalculable.

Very respectfully, your obedient servant,
Z. B. ADAMS.

Hon. W. H. BISSELL.

Extract from a letter written by Dr. John Jeffries, Physician to the Massachusetts General Hospital.

For my opinion of the benefits bestowed upon the world by Dr. Morton, please allow me to refer you to a note addressed by me to the Hon. R. C. Winthrop :

“ Dr. Morton, who visits Washington to seek some remuneration from Government for the benefit which he has conferred upon the country by the introduction of sulphuric ether, requests me to express to you my opinion (which I do most unreservedly) that the world is indebted entirely to Dr. Morton for the introduction of this agent to produce insensibility to pain, and that it is a physical blessing not second to any that has been conferred upon suffering humanity.

“ I sincerely hope that Dr. Morton will receive some remuneration for his very great benefaction.

“ With high respect, your obedient servant,

JOHN JEFFRIES.

“ Hon. R. C. WINTHROP,

“ *Speaker of the House of Representatives.*”

Oliver W. Holmes, the distinguished poet, and a physician to the Massachusetts General Hospital, held the following language in an opening address of the Medical College, Boston :

“ The knife is searching for disease,—the pulleys are dragging back dislocated limbs,—nature herself is working out the primal curse, which doomed the tenderest of her creatures to the sharpest of her trials ; but the fierce extremity of suffering has been steeped in the waters of forgetfulness, and the deepest furrow in the knotted brow of agony has been smoothed forever.”

Again, in a communication to the Hon. Isaac E. Morse, he says :

“ It is a notorious and wholly undisputed fact that Dr. Morton in person instituted the first decisive experiments, at the risk of his reputation, and with a courage and perseverance, without which, even had the idea of the possibility of such effects been entertained, the world might have waited centuries or indefinitely before the result was reached.

“ It is well known that Dr. Morton, instead of profiting by his discovery, has suffered in mind, body and estate, in consequence of the time and toil he has consecrated to it.

"I have no particular relations with Dr. Morton, and no interest in common with him to bias me in my opinion and feelings. But, remembering what other countries have done for their public benefactors, and unwilling to believe that a rich and prosperous republic cannot afford and will not incline to indulge its gratitude whenever a proper occasion presents itself, I have addressed you this line to tell you that I think now is the time and this is the man.

"O. W. HOLMES."

"Hon. ISAAC E. MORSE."

Extract of a letter from Geo. B. Loring, M. D., Salem, Mass.

It is one month since I had charge of the Marine Hospital, Chelsea, Massachusetts; and any statement based on personal experience, must be founded upon my practice there.

In all operations, in all painful natural processes, in all diseases attended with great local suffering, the intelligent and philanthropic physician avails himself of the great blessing. And while so much suffering is relieved, it cannot be doubted—in fact it is satisfactorily proved that mortality attending these operations, processes and diseases, is materially diminished.

As the interrogatories addressed to me have grown out of an inquiry into the "claims of Wm. T. G. Morton, of Boston, to the merit of the discovery," it may be proper to state to the committee that its credit has been from the earliest date, almost universally accorded to Dr. Morton, by those of the profession who have given it their careful investigation. During its development, the surgeons and officers of the Massachusetts General Hospital examined its merits, under the special guidance of Dr. Morton, and with a full recognition of his sole agency in the practical experiments which were leading to its establishment. And now that those events have passed into history, the *Historiæ* of the hospital records as a fact, fixed by all reliable testimony, that Dr. Morton is the discoverer.

It should be borne in mind that this is the verdict of the immediate locality in which the discovery was made; and any recognition from abroad of Dr. Jackson's claims to it is no more than should be expected from the scientific world, towards any pertinacious and untiring claimant, holding his high position, be the claims true or false.

GEO. B. LORING.

Hon. W. H. BISSELL.

Extract from a letter written by Dr. Francis Boott, of London.

I was much interested in the discussion of the ether question, and entirely agree with you in your conclusion. I should say, as in the case of the yacht-race, "*Morton is first, and Jackson nowhere.*" I am glad to find you are making a gallery of portraits of your benefactors and distinguished medical men, and Morton's should be among them. *I still hope Congress will reward him.*

Hon. W. H. BISSELL.

Extract of a letter from S. Paris, M. D., of Greensboro, Alabama.

The medical faculty appreciate it highly, and seem at a loss to know how they would practice without it, nor could a man be sustained by his medical brethren or the community, who would refuse to use it. In fine, it is to the medical profession the greatest discovery of modern times, hardly excepting quinine.

Very respectfully,

S. PARIS.

Hon. W. H. BISSELL.

Extract of a letter from James Ayer, M. D., of Boston.

The cases in which they are more especially employed, are in nearly all surgical operations where suffering is an attendant; in surgical diseases generally painful, and frequently protracted. They are also used in diseases of a spasmodic character, as cholera, cramps, colic, asthma, and in rheumatism and neuralgia. A great variety of cases in midwifery, as well as hysteria and convulsions, and many other painful diseases which might be added to this list, are very essentially relieved by these remedies.

Your obedient servant,

Hon. W. H. BISSELL.

JAMES AYER.

Extract of a letter from P. M. Crane, M. D., of East Boston.

In nearly all the operations of surgery which are likely to be attended with pain, either chloric ether, sulphuric ether, or chloroform, are used. So uniform is the belief in their utility, that no surgeon at the present time would do without them. In ob-

stetric practice they are also extensively used where cases occur requiring instrumental interference, but are not much employed in natural labor.

With much respect,

P. M. CRANE.

Hon. W. H. BISSELL.

Extract of a letter from John H. Dix, M. D., of Boston

In all painful operations upon the globe of the eye and its appendages, these agents afford incalculable relief, both physically and mentally. The severe operations upon the internal textures of the globe of the eye, not in themselves painful, but requiring for their satisfactory performance absolute immobility of the organ, these agents insure what, in young subjects especially, was heretofore only approximated to.

In the few operations of ophthalmic surgery which endanger life, I find from the use of these agents a diminished tendency to inflammatory action within the cranium, and therefore less hazard to life. In aural surgery, though not frequently required, anæsthetic agents are of great value, chiefly in the removal of morbid growths from the external or internal ear. I believe that no other discovery in the whole range of medicine and surgery, (with the exception, perhaps, of vaccination,) has in the same time contributed so much to relieve suffering and prolong life.

Yours, respectfully,

JOHN H. DIX.

Hon. W. H. BISSELL.

Extract of a letter from John Appleton, M. D., West Newburg, Mass.

I have lately observed good effects follow the inhalation of chloroform during a paroxysm of severe suffering from dysmenorrhœa, in which relief was almost instantaneous.

It is, however, in obstetric practice that I have most frequently used these valuable agents, and I regard their usefulness in this relation, as among the most valuable results of their discovery.

Respectfully, yours, &c.,

JOHN APPLETON.

Hon. W. H. BISSELL.

Extract of a letter from L. B. Morse, M. D., Boston, Mass.

They are used in most cases of important or capital surgery, in many cases of delirium tremens, tetanus, and similar neuralgic diseases, and in dental surgery; also, by some of our medical practitioners in common use in midwifery.

It diminishes mortality in three ways: 1st. In severe surgical operations, by the entire relief from nervous excitability and reaction which attend them; 2d. By giving time for the use of the knife, and the careful completion of a dangerous operation, in the perfect quietude of the patient; 3d. The rest secured by some patients in certain neuralgic diseases, which if not attained, death is the result.

I am, sir, your obedient servant,

L. B. MORSE.

Hon. W. H. BISSELL.

Extract of a letter from L. H. Anderson, M. D., Sumpterville, Alabama.

I think anæsthetics diminish mortality in two ways: 1st. By preventing the shock of pain on the nervous system; 2d. By securing perfect immobility of the patient, and enabling the surgeon to operate more safely and exactly.

I am, very respectfully, your obedient servant,

L. H. ANDERSON, M. D.

Hon. W. H. BISSELL.

Extract of a letter from S. Blanding, M. D., Columbia, S. C.

Its use has induced patients to submit to the knife early, when otherwise they would have resulted fatally.

I consider it one of the most important discoveries of the age in mitigating human suffering, and often in saving life.

I have the honor to be, yours, &c.,

S. BLANDING.

Hon. W. H. BISSELL.

Extract of a letter from William Ellis, M. D., Oglethorpe, Ga.

It is my deliberate opinion, founded upon experience, that their effects in diminishing mortality is more than fifty to one, for, if properly administered, the effect is to take away all fear from the patient, and absolutely free the nervous system from irritation, and thereby prevent any interruption in the various organs in performing their functions naturally and of course healthily.

In private practice its most happy and beneficial effects is in obstetrics; nothing is or can be of so much value to a woman in labor in proportion to the difficulty attending labor; so is its benefits, and if in no other, in this class of cases alone, it is the greatest discovery in any age of the world for the relief of suffering humanity; deprive me of its benefits, and I should almost, if not altogether abandon my profession.

WILLIAM ELLIS.

HON. W. H. BISSELL.

MEMORIAL
OF THE
SURGEONS AND PHYSICIANS
OF THE
MASSACHUSETTS GENERAL HOSPITAL,
AT BOSTON,
AND
MEMBERS OF THE MASSACHUSETTS MEDICAL SOCIETY,
IN SUPPORT OF
THE CLAIM OF W. T. G. MORTON, M. D.,
FOR
THE DISCOVERY OF ETHERIZATION.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
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MEMORIAL.

*To the Honorable the Senate and House of Representatives of
the United States in Congress assembled:*

The undersigned hereby testify to your honorable body that in their opinion Dr. William T. G. Morton first proved to the world that ether would produce insensibility to the pain of surgical operations, and that it could be used with safety. In their opinion his fellow-men owe a debt to him for this knowledge. Wherefore, they respectfully ask a recognition by Congress of his services to his country and mankind.

JOHN C. WARREN, M. D., *Senior Surgeon Massachusetts General Hospital, and late President American Medical Society, and Emeritus Professor of Anatomy of Harvard University.*

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 Allston W. Whitney, M. D.
 Francis Leland, M. D.
 Theodore O. Cornish, M. D.

PETITION

OF THE

TRUSTEES OF THE MASSACHUSETTS GENERAL HOSPITAL.

*To the Honorable the Senate and House of Representatives in
Congress assembled :*

The subscribers respectfully represent that they are members of the Board of Trustees of the Massachusetts General Hospital; that the power of the inhalation of sulphuric ether to produce insensibility to pain during surgical operations, was discovered by experiments instituted in this hospital by Dr. William T. G. Morton, and that in their opinion he is entitled to a liberal national reward for the service thus rendered to the country and to mankind.

N. I. Bowditch,
John P. Bigelow,
W. S. Bullard,
Francis C. Lowell,
Thomas Lamb,
Amos A. Lawrence,
BOSTON, *November 22, 1851.*

Wm. J. Dale,
Ed. Wigglesworth,
Charles H. Mills,
J. Thos. Stevenson,
G. A. Shaw.

TESTIMONY

ESTABLISHING

THE CLAIM OF WILLIAM T. G. MORTON, M. D.,

TO THE

ETHER DISCOVERY.

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TESTIMONY, &c.

Boston, *March 25, 1847.*

I, Grenville G. Hayden, of Boston, in the county of Suffolk, and State of Massachusetts, dentist, on oath depose and say—

That about the last of June, 1846, Dr. William T. G. Morton called upon me at my office, No. 23 Tremont Row, and stated to me that he wished to make some arrangements with me that would relieve him from all care as to the superintendence of those employed by him in making teeth, and all other matters in his office. He stated, as a reason for urging me to superintend his affairs in his office, that he had an idea in his head, connected with dentistry, which he thought "would be one of the greatest things ever known," and that he wished to perfect it, and give his whole time and attention to its development. Being extremely urgent in the matter, I made an engagement with him the same day, according to his request. I then asked him what his "secret" was. "Oh," said he, "you will know in a short time." I still insisted upon knowing it, and he finally told me the same night—to wit, the night of the last day of June, 1846, aforesaid—that "it was something he had discovered which would enable him to extract teeth without pain." I then asked him if it was not what Dr. Wells, his former partner, had used; and he replied, "No! nothing like it;" and, furthermore, "that it was something that neither he nor any one else had ever used." He then told me he had already tried it upon a dog, and described its effects upon him, which (from his description) exactly correspond with the effects of ether upon persons who have subjected themselves to its influence, under my observation. All this happened in June, 1846. He then requested me not to mention what he had communicated to me.

About a month after this, or the 1st of August, 1846,* Dr. Morton asked me where he could get some pure ether, and asked me to go to Joseph Burnett's apothecary shop, and purchase a four ounce vial full of ether, which he said he wished to carry home with him, he being about to leave town for Needham, where he then resided. And about the same time he explained to me the nature and effects of ether, and told me, that if he could get any patient to inhale a certain quantity of ether gas, it would cause insensibility to the pain of extracting teeth, and he

* Statement by Morton, in June, 1846, as to his experiment on a dog.—Purchase of ether.—Disclosure, in August, 1846, of the fact that ether was the agent with which he was experimenting.

See Lea- tried to induce me to take it. Dr. Morton said he had breathed
vett, Spear, it himself, and it would do no harm; and he at the same time
and Whit- tried to induce three young men in the office to take the gas.
man. This was in August, 1846. He was continually talking about
his discovery to me. From the time I engaged with Dr. M., as
aforesaid, he frequently stated to me that he had nearly perfected
every department in dentistry, save extracting teeth without pain,
and that he was determined to accomplish that also. But to-
wards the last of September following, he intimated to me that,
in some particulars, his discovery did not work exactly right,
and, in my presence, was consulting his books to ascertain some-
thing further about ether.

Advised Upon this I recommended him to consult some chemist on the
by Hayden subject. Dr. Morton then sent Francis Whitman to see if Dr.
and Wight- Jackson was at home, but Francis returned and said that Dr. J.
man, p.232, was not at home. The next day, however, which was about the
to consult a last of September, 1846, Dr. M. said that he had that day seen
chemist, Dr. Jackson, and derived from him a hint by which Dr. M.
which leads Dr. Jackson, and thought he could remove the only remaining difficulty. Dr. M.
to his visit thought he could remove the only remaining difficulty. Dr. M.
to Dr. Jack- said that, in his interview with Jackson, the subject of nitrous
son, Sept. oxide gas and of ether gas, and atmospheric air, was freely
30, 1846. — talked of, as having an effect on the imagination of the patient,
"It is clear, and various experiments which had been tried with these gases
therefore, on students at Cambridge college; also the experiments of Dr.
that many Wells and himself together, with the nitrous oxide gas; but that
suggestions he withheld from Dr. Jackson the fact that he had been experi-
may have menting on ether gas before. The same day Dr. Morton told
been made, me that he had just tried ether again—in accordance with Jack-
or many son's hint—on himself, and that he had remained insensible seven
hints taken or eight minutes by the watch.
from others
without in-
validating
the claim of
a party to be
considered
as the au-
thor of the
invention.—
Curtis on
Patents,
sec. 47.

The first successful experiment upon any patient was made
September 30, 1846, by inhaling ether through a folded cloth,
and on that occasion a tooth was extracted without pain. We
tried repeated experiments with the same means subsequently,
and they all resulted in total failures. Dr. M. said that Dr.
Jackson recommended a certain apparatus, which he lent Dr.
Morton from his laboratory, consisting of a glass tube of equal
size throughout, having a neck, and being about three feet long.
This was likewise a total failure. So far, all our experiments,
with one exception, proving abortive, we found that a different
apparatus must be obtained; and it was at this time that Dr. M.
procured from Mr. Wightman, of Cornhill, a conical glass tube,
with which, by inserting a sponge saturated with ether in the
larger end, we had better success, and our experiments began to
assume a more promising aspect.

Still, our success was not uniform, and far from perfect. At
this time Dr. M. suggested that our failures might be owing to
the fact that, in all our experiments so far, the patient had

See cer-
tificate of
Frost, the
patient, p.
257.

breathed the expired vapor back into the vessel, thus inhaling the same over and over. He then stated that the expired air should pass off into the surrounding atmosphere, and wished me to make a pattern for an apparatus by which the air should pass into the vessel, combine with the ether, be inhaled into the lungs, and the expired air thrown off into the room. The idea, as thus forced upon him, and communicated to me, was fully elaborated, and corresponds most accurately with the apparatus now in use in this country and in Europe, and for which Dr. M. has applied for letters patent. I replied that he had explained his idea so clearly that he would have no difficulty in directing a philosophical instrument maker to manufacture a proper inhaler at once, without a pattern, and recommended to him Mr. Chamberlain, in School street, to whom he applied accordingly, and who made, as thus desired, the first inhaler. And, with such an apparatus, we have had almost uniform success to this day—the results of which are known to the world.

And I will here state that, on the evening of the 30th of September, after the first experiment had been made with success, Dr. Morton spoke about going to the hospital and using the ether there, and thus bring out the new discovery. After several other successful experiments, the question came up anew, how to introduce it to the world, when Dr. M. stated that Dr. Jackson had declined to countenance it, or aid in bringing it out, and then he (Dr. M.) said he would see Dr. Warren, and have his discovery introduced into the Massachusetts General Hospital. He went out and soon returned, stating that Dr. W. had agreed to afford him an opportunity to apply the vapor, as soon as practicable, in the hospital.

Contrast this with Jackson's statement that he had to urge Morton to the hospital.

For more than four weeks after our first experiment, it was well understood, and often spoken of in the office, that Dr. Jackson repudiated all share, pretence of, or interest in, the discovery. He was never in Dr. M.'s office during all our experiments, to my knowledge, until the 21st of October, and I never knew that Dr. M. advised with Dr. J. as much as with many others, or in fact but once.

See Chandler, p. 258; C. Eddy, p. 286; Gould, p. 265; (6th question;) R. H. Eddy p. 397.

GRENVILLE G. HAYDEN.

In corroboration of the statements as to the connection Dr. Morton formed with Dr. Hayden and his object in forming it, see Mr. Dana's letter to Mr. Bowditch, one of the trustees, and that of his kinsman, Francis Dana, jr., M. D., taken from the trustees' report.

30 COURT STREET, *January 8, 1848.*

MY DEAR SIR: On the 30th June, 1846, Dr. W. T. G. Morton came to my office, in company with Dr. G. G. Hayden, to have a contract drawn, the object of which was to provide, that

See Hayden, p. 193.

Dr. Hayden should take the entire charge of Dr. Morton's business for a time, in order that Dr. M. might be able to give his attention to something else. Dr. Morton did not state what it was that he was engaged upon; but my impression, founded on my own recollection alone, is very strong, that he said it was something of great importance, which, if successful, would revolutionize the practice of dentistry. I am entirely confirmed in this impression by Dr. F. Dana, whose note on the subject I enclose. It was agreed that I should keep the instrument, and I have it now before me. It bears date June 30, 1846, and was to take effect the next day. The charge in my account books for drawing the contract is of the same date.

Truly your friend and servant,

RICHD. H. DANA, JR.

NATHANIEL I. BOWDITCH, ESQ.

JANUARY 10, 1848.

Note enclosed in the preceding.—DEAR SIR: During the summer of 1846, in the course of a conversation on the subject of dentistry, you mentioned to me that Dr. Morton had told you he was engaged upon something of great consequence, which would revolutionize the practice of dentistry. This conversation was during the extreme hot weather of that summer, a long time before the discovery of the effect of ether, in producing insensibility during operations, was announced; I should say, so well as I can judge, between two and three months.

FRAS. DANA, JR.

To R. H. DANA, JR.

I, William P. Leavitt, of Boston, in the county of Suffolk, and Commonwealth of Massachusetts, dentist, of lawful age, being first duly sworn, depose and say, in answer to interrogatories by Richard H. Dana, jr., Esq., counsel for William T. G. Morton.

1st. Where is your residence? how long has it been so? what is your occupation, and how long have you followed it?

Ans. I reside in South Boston; my place of business is 23 Tremont row, in Boston; I have been in business there nearly four years; I am a dentist, and it is about six years since I commenced to learn the business; I have been in the practice of it nearly four years.

2d. Did you study dentistry under Dr. Morton? When?

Ans. I commenced studying dentistry with Dr. Morton in March, 1846, I believe, and was there nearly three years.

3d. Do you recollect Dr. Grenville G. Hayden? When did he come into Dr. Morton's office, and in what capacity?

Ans. I do recollect him; he came into Dr. Morton's office the last of June, 1846, as a practitioner of dentistry.

4th. After Dr. Hayden came, who had the chief control of the dental business of the office?

Ans. Dr. Hayden.

5th. How much, if anything, did Dr. Morton himself do, in the dental department, after Dr. Hayden came? How had it been before?

Ans. I could not say that he did anything after Dr. Hayden came; Dr. Morton superintended the business in that department before he came.

6th. Do you recollect Dr. Morton's saying anything to you or the other students, about taking out teeth without pain? If yea, please state all the circumstances of the first occasion.

Ans. I don't know that I heard him say anything about it until he came into the office at one time and said, "I've got it." This was in the back office; he came in from his front office, where his library was, and where he operated, not from out of doors, when he said this; he came into the back office; his place of business was No. 19 Tremont row; it was up one flight of stairs; he had two rooms upon that floor; out of the front room there was a small operating room; in this small room was where he operated; the front room was used for a receiving room principally; this small room could be closed perfectly from the noise; the back room was used for a laboratory, and for an operating room; the doctor came in from his front office into the back office, in an animated sort of a way and said "I've got it;" he said "I shall take my patients into the front room, extract their teeth, take them into the back room, put in a whole set and send them off without their knowing it." That is all which I recollect on that occasion.

This was before the interview with Jackson. See below. See also Metcalf and Wightman.

7th. Was this before or after Dr. Hayden came? How much so? Do you remember the occasion when a man named Eben Frost had his tooth pulled out? Was this conversation before or after that, and how long?

Ans. This was after Dr. Hayden came, I think, but am not positive; I can't say how near it was to that time; it must have been after Hayden came, because I was absent in the country when he came, and this conversation took place after my return; I do remember the occasion when a man by the name of Eben Frost had his tooth pulled out; this conversation was before that time, some days, and I should think some weeks, but I am not positive how long before.

8th. What did you first know Dr. Morton to say or do about ether? State all you recollect, in its order, with all the circumstances.

Experiments by Dr. Morton with ether, in July, 1846.

P. 143.

Ans. The first which I heard of ether was immediately after my return from the country. It was the 1st of July, 1846. The first I heard, I believe, was when I was sent after some to Brewer, Stevens & Cushing. I heard Dr. Morton ask Dr. Hayden where he could procure some pure ether; this was in the back office. Hayden told him that he could get it probably at Brewer, Stevens & Cushing's, on Washington street. He then spoke to me, and asked me to go down, take a demijohn and get it filled, and be careful and not let them know who it was for. I went down and bought the ether, and to make sure, I told him to make the bill for the ether out in the name of some man in the country. I forget what name I gave him. He did do it, and gave it to me, and I returned to Dr. Morton; I gave the ether to him. Soon after that he sent me to Dr. Gay's, to ask him if ether would dissolve India rubber; I went, and did not find the place and returned. Dr. Morton sent Frank Whitman, his brother-in-law, to Dr. Jackson's, [but Whitman told me that he did not find Dr. Jackson.]

(The part in brackets objected to as hearsay. J. P. P.)

9th. Did you hear Dr. Morton send Mr. Whitman to Dr. Jackson? if yea, what message did you give?

Ans. I did hear him. He asked him to ascertain from Dr. Jackson, if ether would dissolve India rubber.

10th. What was the next you saw or knew Dr. Morton to do, about ether?

Further proof that Dr. Morton did not derive his idea from Dr. Jackson. (See ans. to 23d question.)

Ans. The next I heard of it, he sent me and Thomas R. Spear to find a man to have a tooth extracted, under the influence of the ether. He told me he would give me five dollars if I would find a man to take the ether and have a tooth extracted. I went out with Thomas R. Spear for that purpose, but I did not find one; I went down on the wharves, City wharf and Faneuil Hall market. He wanted a big Irishman, he said, a full, robust man, to whom he could give a good quantity. I returned, and reported so to Dr. Morton. Before this, he had tried to induce me to inhale the ether. He asked me to take it, and said it was perfectly harmless, that he had taken it himself. I declined doing it. He tried to hire Spear to take it in my presence. Dr. Morton offered him some money. It was five or eight dollars. Spear said he would take it, at the time, I believe, but afterwards concluded not to.

11th. Did you and Spear finally take the ether? If yea, describe all the circumstances.

Ans. We did take it. Spear took it first. It was in Dr. Morton's little room, out of the front room, where he kept the ether.

ton's little room, out of the front room, where he kept the ether. It was near the evening. Dr. Morton had gone out of town to his place of residence, Needham. We both of us took it at this time. Spear said he had taken what he supposed to be the same, at the Lexington Academy, something like exhilarating gas. We inhaled it from a sponge in the inhaler.

12th. State what you know of Mr. Eben Frost's having his tooth pulled out.

Ans. The first I knew of it was in the morning after; I heard them talking about it in the office.

13th. Was this the first case of a patient inhaling ether to your knowledge?

Ans. Yes, sir.

14th. After this case, did others do so? how soon after? how many?

Ans. Others did so immediately after. I recollect soon after, before Dr. Morton had got his apparatus completed, he attempted to give it to a young lady. Her name was Whitemore, of Cambridge, daughter of Rev. Mr. Whitemore. I recollect that as soon as he had got the apparatus completed there was enough of them.

15th. How soon was the case of Miss Whitemore after Frost's case? how soon after Frost's case did he get his apparatus completed?

Ans. I should think Miss Whitemore's case was two or three days after the Frost case. It might have been more. It might have been less. I should think it was a week or more after Frost's case that he got his apparatus completed. There were a number of different kinds of apparatus prepared by him before he got the one which came into general use, the sponge. We used some kind of an apparatus when we gave it to Miss Whitemore.

16th. Are you sure that you and Spear inhaled the ether through an inhaler?

Ans. I am not positive.

17th. State the best of your recollection about this.

Ans. I don't know that it is proper to call it an inhaler. It was a small tube, perhaps four inches long, in which we placed a sponge and inhaled it from the sponge. The tube was four or six inches long, of uniform size, in the shape of a tin cup. It stood on the shelf. The sponge was in it. We took it down and inhaled the ether from the sponge.

18th. Are you sure it was ether that Dr. Morton asked you and Spear to take? Could it have been nitrous oxide gas?

Ans. I am sure it was ether. It could not have been nitrous oxide gas.

19th. Are you sure it was ether that he sent you to Dr. Gay, Whitman, and Dr. Jackson, to make the inquiries about as to its melting India rubber?

Ans. Yes, sir.

20th. What kind of ether was it?

Ans. It was sulphuric ether.

21st. When did you go into the country, and when return that summer, as you have said?

Ans. I went into the country after the middle of June, and returned the 3d day of July. It was the last of June, because I was summoned to attend the Court of Common Pleas in Concord, Massachusetts, and was detained there nearly a week; that was the occasion of my absence.

22d. How soon after your return was it that Dr. Morton made the inquiries about getting ether, and asked you and Spear to take it? How do you know they were before Frost's case?

Ans. I could not say; I should think it was some time after. Frost's case did not occur till cool weather; it was in September, I think. My getting of the ether was the last of July or the first of August.

23d. At the time you were asked to take ether, and were sent down on the wharves to get a man, had Frost's case occurred? If it had, would you recollect it? Were any attempts made to get any other than patients to use it after Frost's case?

Ans. Frost's case had not occurred at that time; if it had occurred, I should recollect it. No attempts were made, to my knowledge, to get any other than patients to take it after Frost's case.

24th. How many persons had Dr. Morton in his establishment in the summer of 1846?

Ans. Dr. Hayden, Francis Whitman, Thomas R. Spear and myself.

25th. Please look at the affidavit in your name in Report No. 114, to the 30th Congress, at its second session, bearing date February 28, 1849, at page 73. Is that your affidavit? Have you any change or explanation to make therein?

Ans. It is my affidavit; I have no change or explanation to make therein.

26th. Please look at the affidavits of Henry C. Lord and Daniel W. Gooch, on pages 75, 76, 77 and 78 of the same report. What answer do you make thereto, if any?

Ans. My affidavit referred to in my answer to the preceding interrogatory is my answer, a copy of which I annex, and make part of this my answer.

(This copy is annexed, marked B. J. P. P.)

27th. Please look at the affidavit on page 79 of the same report. Have you any change or explanation to make therein?

Ans. I have one which I wish to make. I inhaled the ether from a sponge; Spear inhaled it from a handkerchief.

28th. Please state what the thing from which you took the sponge, when you first inhaled the ether, had been used for.

What had the sponge been used for? Why did you use these things?

Ans. It was a tin cup, or tube, as I called it. It was used to keep the sponge in, out of the way, so that we could have it handy at any time when we wanted it. The sponge had been used for wiping patients' mouths when they were bloody, and also for wiping instruments. I used these things because it was more convenient for me to hold the sponge than it would have been to use the handkerchief.

29th. Why did you and Spear inhale the ether that evening? Did you, and when, make any report of the result to Dr. Morton?

Ans. Dr. Morton had been asking us frequently to inhale it. We did it that evening because we were alone in the office, and it was more convenient, I suppose; I don't know any other reason. We reported to Dr. Morton the result the next morning. We reported that we had taken ether on the previous evening, and described the effects. Dr. Morton wanted to know what the effects were. He asked me particularly how Spear behaved; if he did not fall right away under the influence of it, and become unconscious. I told him no; that he was very much excited. He then asked me how it affected me. I told him that it made me numb, dull, heavy and stupid. I believe he said that if I had taken a little more I should have become unconscious, so that I could have had an operation performed, and not have felt the pain. I don't recollect his words, but it was something like that.

30th. At the time you so first inhaled the ether, and made your report to Dr. Morton, as you have just said, had there been any case, to your knowledge, or had you heard of any particular case in which teeth had been extracted, or surgical operations performed, under the operations of ether?

Ans. No, sir.

31st. When Dr. Morton told you, as you have just said, that if you had inhaled more you would have been insensible, did you, or not, credit him? Had you any reason for crediting him except his own statement of his opinion or belief?

(Objected to, as not evidence of any fact, but opinion of witness. J. P. P.)

Ans. All the reason which I had for crediting him, was his opinion or belief. I knew nothing of these effects of ether before. I thought it was correct, as it affected me in such a manner. This was the first time I knew of its being used in the office, and Spear was the first one I ever saw inhale it.

32d. When Dr. Morton came into the back office and exclaimed, "I have got it now," &c., as you have said, had you any knowledge or suspicion at that time what agent he was using or referred to?

Ans. No, sir.

33d. At that time had your attention been called to ether in any way in the office, as to inhaling it, or its effects on the system?

Ans. No, sir.

34th. When you went to Brewer, Stevens & Cushing's, for ether, did you know or suspect, and if so, how far, for what purpose Dr. Morton wanted it?

(Objected to, as inquiring of the knowledge or suspicion of witness. J. P. P.)

Ans. I did not know what he wanted of it, nor suspect it.

35th. When you went down to the wharves with Spear to find a man for the experiment, did you at that time know, or had you heard of any particular case in which teeth had been actually extracted, or a surgical operation actually performed, under the effect of ether?

Ans. No, sir.

36th. Was there not a time, and how long a time before Frost's case occurred, when there was ether, and what kind of ether in the office? How do you know this? Were there or not, during this time, and how much of it, any flasks, rubber bottles, or the like? What was done with them, if anything, in this connection?

Ans. I purchased ether some time before Frost's case, of Brewer, Stevens & Cushing, and that was sulphuric ether; I purchased it for the office; I should think it was two or three weeks before Frost's case; it might have been more; I know it was sulphuric ether which I inhaled, and that was some time previous to Frost's case; there were, during this time, how much of it I can't say, flasks and rubber bottles; at the time I inhaled it, there were a number of them; I don't know what was done with them; I never saw them used.

37th. What was your age, in the summer of 1846?

Ans. I was twenty-one.

38th. How many books had Dr. Morton in his library, of which you have spoken?

Ans. He had a large quantity of them; I should think there were fifty volumes, or more; between fifty and a hundred.

39th. On what subjects were these books?

Ans. On different subjects; he had a great many on dental surgery, and medical books; he had books on chemistry, histories, biographies, &c.

40th. Did you or not ever hear Dr. Morton give any message to Frank Whitman respecting a book on ether—if yea, what was the message?

Ans. I heard him ask Whitman to get down a book on chemistry, and see what it said on ether.

41st. Did he do so? What else took place?

Ans. I could not say whether he did or not; nothing else took place that I remember of.

42d. At this time had any experiments been performed, or had your attention been called to ether?

Ans. No, sir.

43d. Is Francis Whitman now living; if not, when did he die? Where is Dr. Granville G. Hayden? Where is Thomas R. Spear?

Ans. Francis Whitman is not now living; he died in November, 1847; Dr. Hayden is now in San Francisco; Thomas R. Spear is in San Francisco.

44th. Are you in any way connected with Dr. Morton by blood, marriage or business, or have you had any business relations with him since you left his office?

Ans. No sir.

45th. What was Dr. Morton's principal department of dentistry, and what was principally done in the laboratory, before the time Dr. Hayden came?

Ans. Dr. Morton superintended all the business of dentistry before Dr. Hayden came; the principal business done in the laboratory was preparing plates and teeth for the mouth.

46th. Were teeth made there, and to what extent?

Ans. We manufactured there nearly all we used.

47th. Did any one else than Dr. Morton, to your knowledge or belief, have any direction over or advice as to the chemical and surgical knowledge necessary for this work?

Ans. No, sir.

Cross interrogatories by A. Jackson, jr., Esq., Counsel for Dr. Charles T. Jackson.

1st. Where is the place of your birth? What your age? What has been your business before you gave your attention to dentistry?

Ans. I was born in Concord, New Hampshire; I am twenty-seven years old; I was born on the fifth of February, 1825; my business was farming before I gave my attention to dentistry.

2d. Do you know Dr. C. T. Jackson? When did you first know him? Where have you seen him? How often?

Ans. I don't know him only by sight; the first time I ever saw him, I saw him in Dr. Morton's office; I have met him on the street a dozen times; I don't know that I ever saw him in the office more than once after the time I first saw him; I first saw him in the office in the fall of 1846; I can't fix the exact date; it was after the ether discovery.

3d. Are you a chemist, or acquainted with chemistry? What is nitrous oxide gas? When did you first know about this gas? Describe chloric ether, if you are acquainted with it, and its properties?

Ans. I am not a chemist, and not much acquainted with chemistry; nitrous oxide gas is a gas which is inhaled for amusement; I can't tell when I first knew about this gas; I should think it was in the fall of '46; that is, when I knew the effects of it; I had read of it previously to that; I am not much acquainted with chloric ether.

4th. How many rooms had Dr. Morton in September and October, 1846, in No. 19 Tremont row? How could you enter them? Did they open into each other?

Ans. Previously to October, he occupied only two rooms on the second floor; after the discovery was completed and we commenced giving ether, he had the whole of the building above the second floor, four rooms more than he had before; only the two rooms on the second floor opened into each other, at first.

5th. Did you work in August and September, in the front or back room? How did you get from the back room into the street? How from the front office into the street?

Ans. I worked in the back room; there was a door opened from the back room out into the entry, as also one from the front room.

6th. How do you know where Dr. Morton came from, when you say that he came into the back office, in answer to the 6th interrogatory?

Ans. There is also a communication from the front room to the back room under the stairs; a person could not come into the front room without our knowing it in the back room, because the dead-latch was down in the front office, and there was a spring to ring a bell; I know that he came from the front office; I was the youngest student at the time, and it was my business to tend the door, and see who went out and who came in.

7th. Who was in the back room at this time, when, as you say, Dr. Morton came in? Who was in the front room?

Ans. I think we were all there: Spear, Whitman, Hayden and myself. I don't think any one was in the front room.

8th. How do you know that the latch was down, as you say in answer to the 6th cross interrogatory?

Ans. I generally kept it down, as there were offices up stairs, and people ran in often, and we had books stolen from the centre table. That was the reason we kept the dead-latch down.

9th. Was not the front room the receiving room for all visitors and patients? if not, where did they come in?

Ans. No, sir; not always. The front room was for the surgical department, and the back room for the mechanical department. Visitors and patients came into both rooms.

10th. How long had Dr. Morton been in the front room, as you say, alone, when he came into the back room? Had he a key to lift the dead-latch of the front room? Did he usually ring when he entered?

Ans. I should think he had been in all of the morning. He had no key to lift the dead-latch of the front room. He did not usually ring when he entered. He usually came into the back room.

11th. What time of day was it when, as you say, Dr. Morton came in?

Ans. I should think it was before dinner. I could not say how long before.

12th. You say that Dr. Morton came into the back from his front office, on one occasion, and said, "I've got it." "I shall take my patients into the front room," &c., to whom did he say this? What had Dr. Morton in his hands, when as you state, he said this?

Ans. He said it to no one in particular. I don't know that he had anything. I think he went to Dr. Hayden when he came in.

13th. Had he any bag or tube with him?

Ans. I don't recollect that he had.

14th. What was said by you, or any one, in answer to what, as you state, Dr. Morton said on this occasion?

Ans. I did not say anything, and don't recollect of anybody saying anything.

15th. How long was Dr. Morton in the back room at this time? Where did he go to from the back room?

Ans. I should not think he was there but a very few minutes. He went back into the front room.

16th. When Dr. Morton asked Hayden where he could get ether, do you recollect the words he used in his inquiry of Dr. Hayden? if so, what were those words?

Ans. He asked him where he could get pure sulphuric ether. Those were the words.

17th. What sort of a demijohn did you take to Brewer, Stevens & Co.? How large was it? When was this?

Ans. I should think it held half a gallon. It was a common demijohn. This was in August, I think, 1846.

18th. What makes you think it was in August, 1846?

Ans. That was the first which I heard of ether.

19th. How long after you first heard of ether was it that you went to Brewer, Stevens & Co.?

Ans. The same day.

20th. How long was this after the scene you narrated of Dr. Morton's coming into the back office saying, "I've got it?"

Ans. I can't say; it was after it; perhaps it was a week.

21st. Was it a month or two months after?

Ans. It was not.

22d. Have you not stated before that you could not tell; that it might be weeks?

Ans. I guess not; I guess I said days.

23d. Whom did you see at Brewer, Stevens & Co.'s? State all that took place there. Had you ever been there before?

Ans. I can't say any one in particular, because I was not acquainted with them; I inquired if they had any sulphuric ether, and they told me they had; I don't know whether it was a clerk or one of the firm; I got the ether, and asked them for a bill; I gave them a name, what, I don't recollect, and they made out a bill; I can't say how much I bought; I think I asked him how much they would ask for a demijohn full of ether, and I think he said he sold it by weight or the pound; I do not recollect how much I paid, nor how much I got; I had never been there before.

24th. You say in the 8th interrogatory, that Dr. Morton told you to be careful and not let Brewer, Stevens & Co. know whom it was for. Did he give any reason at the time for being careful, as you have stated it?

Ans. No, sir.

25th. How many demijohns were there in the office? When you went to Brewer, Stevens & Co., were there more than the one you took? If there had been, should you have known of it?

Ans. I could not say; there might have been more without my knowing it.

26th. Did you bring the demijohn back? Where did you put it?

Ans. I brought it back and gave it to Dr. Morton.

27th. What did he do with it? When did you next see it after bringing it back?

Ans. I don't know what he did with it; I saw it in his little operating room, a few days after, it might have been the same day; it was the little room out of the front one.

28th. How often did you see it in this little room you speak of? Was this little room a third room that Dr. Morton then had?

Ans. It was there for a long time after; I saw it every day; it was not a third room; it was a small ante-room, which belonged to the main room, but was partitioned off by him.

29th. Are you sure that the demijohn spoken of by you was not a gallon demijohn? May it have been a gallon demijohn?

Ans. I am not positive that it was not a gallon demijohn; it was not a two gallon one. My impressions are that it was a half gallon demijohn.

30th. Was any use made of this demijohn of ether after it was, as you say, put in this ante-room, where you saw it every day?

Ans. I used it, and Spear used the ether out of it; I do not know of any other use.

31st. After the demijohn of ether was brought to the office, was the odor of it perceptible to all persons coming there?

Ans. I can't say as to that.

32d. Did the odor, after it was brought in the demijohn, so fill the office that you always perceived it when you entered?

Ans. No, sir, not always; once in a while we noticed it.

33d. When did you first see Dr. Morton inhale ether, if you ever saw him?

Ans. I never saw him.

34th. After Dr. Hayden came, did, or not, Dr. Morton busy himself with plate work for whole sets of teeth?

Ans. No, sir; Dr. Morton would not see patients, unless they would send their names and business.

35th. Did you know or hear of any experiments of Dr. Morton's, with King's cement, or use by him of this?

Ans. No, sir.

36th. Did you know or hear of any new substance to fill teeth with, used or tried by him?

Ans. No, sir; Dr. Morton's work was artificial work, principally, in the establishment; there was very little filling done.

37th. Did you know of any use or experiments by him of lime and alum?

Ans. No, sir.

38th. Did you know or hear of any use by him of chloric ether, to deaden the sense of pain in nerves of teeth?

Ans. No, sir.

39th. You have said that Spear and you inhaled ether one evening—whether, or not, this evening was after the cold weather had begun in the fall of 1846?

Ans. It was in warm weather.

40th. Was not this evening in October or November, 1846, when, as you say, Spear and you inhaled ether?

Ans. No, sir; it was in warm weather.

41st. How do you fix it in your mind that this was not in October?

Ans. It was after I had purchased the ether of Brewer; I know it was before the Frost case, and that was in September; and after that we all knew the effects of ether, for we commenced giving it to all persons who came in.

42d. Do you say that the evening when you and Spear took ether was before October?

Ans. Yes, sir.

43d. Suppose that Spear stated under oath that it was in October or November, should you, with confidence, say it was before October?

Ans. Yes, sir.

44th. I wish you to describe the proceedings of yours and Spear's in taking ether on this evening you have spoken of.

Ans. I had charge of the front room, and Spear, I think, had charge of the back room; I most generally took care of my room in the evening after folks had gone out, and Spear was present;

- he got hold of the demijohn in some way or other, and said, "I'll take some ether, will you?" He took out his handkerchief, sat down in the chair, took down the demijohn, and turned some on; he sat back in the chair and held the handkerchief up to his face, and began to inhale it; he appeared to fall nearly asleep; he would quite, I think, if he kept still, if it had not excited him so; I think I told him if he would inhale it through his mouth, it would affect him much quicker, and much pleasanter; that it would not excite him so much as it would to draw it through his nostrils; I sat down in the chair, and took the cup which I mentioned with the sponge in it; I told Spear that I would take it if he would leave the room, as I was afraid he would cut up some capers, he was so lively, if I got asleep; I shut myself into the room, sat back in the chair, and began to inhale it.

45th. Did Spear when he inhaled the ether, on an evening, when, as you say, you and he inhaled it, move from the chair in which he was seated?

Ans. He did not move while he was inhaling it, not until he dropped the handkerchief; then he jumped up and was very much excited, he jumped round considerably; I did not hold him; it was a minute after he put the handkerchief to his nose before these effects showed themselves.

46th. You said in answer to 10th interrogatory that Spear concluded not to take ether after Morton had offered him money if he would take it. Why did Spear decline to take it?

Ans. I don't know.

47th. Do you not know that Spear called on Dr. C. T. Jackson to assure himself of the safety of inhaling sulphuric ether, before he ever inhaled it?

Ans. No, sir.

48th. What had Spear said to you about going to consult Dr. Jackson, as to the safety of inhaling ether before he inhaled it on the evening you have said that he and you inhaled it?

Ans. He did not say anything about it.

49th. Describe all that you did in regard to inhaling ether yourself, as you have stated that you did inhale it on a certain evening, when Spear also inhaled it; who held the small tube, which you have described as four inches long, to your mouth.

Ans. I held the tube myself. This tube, I wish it to be understood, was nothing more than a tin cup. I have said that it made me feel dull, heavy, and stupid. I should think that it lasted half an hour. I should think it was half a minute before I began to feel the effects of it. No one was with me. I was not in the chair more than a minute, I don't think. I took the cup in my hand with the sponge in it, turned the ether into it, and held it up to my face. I could not say how much ether I put upon it. The sponge was always washed after it had been used, and put into the dish ready for the next time.

50th. When did you learn that it was nothing more than a tin cup? How learn this? Why did you call it an inhaler yesterday?

Ans. I have not learned anything more about it than I knew at the time. This is something that occurred six years ago. When I gave my other affidavits, everything was fresh in my memory. I corrected myself immediately after calling it an inhaler, yesterday. I am sure I don't know why I called it an inhaler, except that it first came into my mind. I tried to give an explanation of the tin box, or cup, but it seems that I was not fully understood.

51st. Why did you use the tin tube of which you have spoken when you inhaled ether in the evening that Spear did?

Ans. I have already said, I believe, because it was more convenient.

52d. At the time you inhaled ether and felt numb and heavy, &c., as you have stated, on the evening when Spear inhaled it, was there an India rubber bag in either of the rooms of Dr. Morton?

Ans. Yes, sir.

53d. Was sulphuric ether ever purchased for the office of Dr. Morton *by the demijohn*, except in the instance you have testified about? Where did you last see that demijohn, and when, and how much ether was there in it?

Ans. It was not purchased to my knowledge on any other occasion. The last I saw of the demijohn, it remained in the little room. It was that fall, how late in it I don't recollect. I can't say how much ether there was in it.

54th. Was there any case, by inhalation of ether, of numbness, &c., as you have described the effects on yourself, before your own, to your knowledge, in Dr. Morton's premises?

Ans. No, sir, with the exception of Spear's.

55th. You say in answer to 29th interrogatory, that we inhaled ether because we were alone in the office. Was it or not, that Spear on the evening referred to, urged you to take it?

Ans. No, sir. I don't know as he gave any reason; he merely asked me to take it. I don't know, I am sure, that I could give any reason for taking it, more than out of curiosity.

56th. You say in 29th interrogatory, that Spear did not fall right away and become unconscious, but that he was very much excited. You say that it made you numb, dull, heavy, and stupid. Is this a full description of the effects upon you and Spear on the evening you say you and he took the ether?

Ans. I believe it is.

58th. Do you remember Dr. Morton's reply to you when, as you say, you told him the effects of the ether on you on the evening you have testified about?

Ans. He said that if I had taken a little more, I should have

probably been unconscious, so that I might have had an operation performed without feeling any pain or without knowing it.

59th. What was it that you now say you told Spear, when, as you say, he had the handkerchief at his mouth on the evening you say he and you breathed the ether?

Ans. I did not tell Spear anything.

60th. How long do you say that the demijohn of one gallon or of half a gallon had been in the office before you and Spear inhaled it?

Ans. I could not say.

61st. How long does it take, after teeth have been taken out, before the gums are so hard or in such order that a new set of teeth can be put in?

Ans. From eight to twelve months.

62d. Did you ever hear Dr. Morton say he had inhaled sulphuric ether?

Ans. Yes, sir; after I bought the ether of Brewer, Stevens & Cushing; I should think it was a few days after.

63d. Ever hear Dr. Morton say from what—by means of what apparatus he himself breathed sulphuric ether?

Ans. No, sir.

64th. When, in answer to one of the questions, you said that these things happened so long ago that you could not tell what occurred next, what did you mean by that statement?

Ans. I meant that a great many of these little things, of which I am inquired of now, had slipped my mind. I gave the substance of the whole, but perhaps not the details, as fully as I had previously.

65th. Did you mean that you were not clear and precise in your recollection of dates, or of the order of occurrences that happened so long since?

Ans. No, sir.

66th. Did you hear Dr. Morton speak of a new composition for filling teeth?

Ans. No, sir.

67th. Did you ever hear him speak of a new mode of fastening them to the plate?

Ans. No, sir.

68th. When, as you state in answer to 9th interrogatory, did you hear Dr. Morton ask Whitman to ascertain from Dr. Jackson if ether would dissolve India rubber?

Ans. That was after I purchased the ether of Brewer, Stevens & Cushing, and after I had been sent to Dr. Gay's.

69th. Was there not, after the 30th of September, 1846, a variety of apparatus prepared and proposed, and tried for the purpose of inhaling ether?

Ans. I think there was.

70th. Were you steadily in Dr. Morton's office during the early part of October, 1846, while ether was administered to the patients there?

Ans. Yes, sir.

71st. Were there not many inquiries by the patients as to the safety and security of inhaling ether?

Ans. I don't know as to that.

72da. Did you not hear Dr. Morton often answer inquiries by assurances of the safety of the inhalation of sulphuric ether, and give as his authority the assurances as from Dr. Jackson that it could be breathed with perfect safety?

Ans. No, sir; I never heard Dr. Jackson's name mentioned in connexion with ether until a long time after this time—I mean October.

72db. In answer to 28th interrogatory, you say it was more convenient to use sponge than a handkerchief. Who had used the sponge and tube of which you have spoken before this time, when you took it in the evening?

Ans. I don't know that anybody had for that purpose.

73d. To whom, during the months of October and November, 1846, have you given any accounts or statements of the discovery of anæsthesia?

Ans. No one.

74th. Do you mean to swear that, during those two months, you did not talk of this discovery?

Ans. We did talk of it a great deal in the office.

75th. Did you not talk of it out of the office?

Ans. Yes, I think I did. Everybody was talking of it; I can't name now any particular person. People would frequently ask me what we were doing—"what are you doing up to Morton's there?"

76th. Did you not say, during the fall of 1846, that Dr. C. T. Jackson, or Dr. Jackson, made the discovery, but that Dr. Morton deserved credit for bringing it out?

Ans. No, sir.

77th. Whether or not you have heard Dr. Morton state, between October, 1846, and November of that year, and up to January or February, 1847, that Dr. Jackson was the discoverer of anæsthesia, and that he (Morton) was the person to whom Dr. Jackson had communicated the discovery?

Ans. No, sir.

78th. Have you read here in the office to-day the affidavit of Daniel W. Gooch, on page 77, in Report No. 114, referred to in 25th interrogatory?

Ans. Yes, sir.

79th. Since yesterday, the 22d of November, (your direct examination having been adjourned till to-day,) with whom have you spoken about your evidence here?

Ans. I spoke with Mr. Dana last evening ; he is the only person, I believe.

80th. Who has spoken to you of coming here ?

Ans. No one, only the constable who summoned me here.

81st. During the half hour's recess to-day, (taken after 29th interrogatory,) have you spoken with any one ? if any, with whom, about the subject of your examination ?

Ans. No one, sir.

82d. Who called your attention since yesterday to your statement in the 11th, 16th and 17th interrogatories ?

Ans. No one ; it came to me voluntarily last evening, when I went home and looked at my affidavit.

83d. What affidavits did you look over last night ?

Ans. The affidavit which I first made. I don't recollect the date of it.

84th. What was it in ? Who furnished you with the paper or papers ?

Ans. I have them on file. It was in the minority report of Dr. Jackson.

85th. What have you on file ?

Ans. The papers and pamphlets relative to the ether controversy.

86th. How much time did you give to a perusal of them last night ?

Ans. Five minutes, not to exceed that, I don't think.

87th. How much time before, and when last before ?

Ans. I am sure I can't say. I read Dr. Morton's report ; I mean the last Congressional report. That was the last I read on the subject.

88th. You say in answer to 8th interrogatory, that Dr. Morton sent you to Dr. Gay's—what did Dr. Morton say to you about going to Dr. Gay's ? Why did you not find Dr. Gay's place ? Did you look in the Directory to find Dr. Gay's number ? Did you go more than once to find Dr. Gay's place ?

Ans. He said, "William, go up to Dr. Gay's, and ask him if ether will dissolve India rubber." He told me where it was, I believe ; I went, and I believe I could not find the place. I had not been in the city then for a great while, and was not much acquainted with the city. I don't remember of looking into the Directory. I did not go more than once.

89th. Was anybody else sent to Dr. Gay's place ? Can you tell the date, or near the date when you went as you say, to Dr. Gay's ?

Ans. No one else was sent that I know of. I cannot tell the date. I know it was after I bought the sulphuric ether, and previously to the Frost case.

90th. Have you ever before made the statement which you have made here to-day, in answer to 29th interrogatory, of the effect of ether upon yourself, and of the reply of Dr. Morton to you ?

Ans. No, sir.

91st. Why not?

Ans. I don't know that I was ever asked before how it affected me.

92d. Did you know it all the time when you made your former affidavits?

Ans. Yes, sir. I knew how it affected me, of course.

93d. Did you have these things, which you say you have now for the first time stated, in your mind and recollection then?

Ans. I don't know whether I remembered them at the time or not.

94th. If you did not remember them at the time, have you known them since, and if since, how long since?

Ans. I knew them all the time.

95th. Why did you not state them, if that is so?

Ans. I can't say, because I don't know that I recollected them at the time. I might have supposed that they were of no consequence, perhaps.

96th. What did Dr. Morton say to Whitman, when, as you say in answer to 40th interrogatory, he asked him to get down a book and "see what it said on ether?"

Ans. That is all that he said; all that I heard him say, at any rate.

97th. When did Francis Whitman die? What of? And when?

Ans. He died in November, 1847, of typhoid fever, at Dr. Morton's father's.

98th. Was that at Dr. Morton's house?

Ans. I don't suppose it was. It was Dr. Morton's father who kept the house.

99th. Did Dr. Morton live in that house?

Ans. He boarded there, I believe.

100th. State when and where your affidavit of March 25th, 1847, printed in Report No. 114, and referred to in your answer to 27th interrogatory was made; who wrote it; who was present while it was written; and all the circumstances attending the taking of it?

Ans. It was made at Dr. Morton's room, No. 19 Tremont row, in the laboratory, which then was in the third story, I think. R. J. Burbank, Esq., wrote it. I can't say surely, who were present. I was present, and Spear was present, and it is my impression that Whitman was present. I don't know that there is anything else to state about it. He came in and took it. It was the first I heard of it. It had not been mentioned to me by any person.

101st. Was G. G. Hayden present?

Ans. I don't think he was.

102d. Do you know D. P. Wilson?

Ans. Yes, sir.

103d. How were the affidavits taken? Were Spear and Whitman there while your affidavit was reduced to writing?

Ans. I don't know whether Spear and Whitman were present when my affidavit was taken or not. I think they were present some of the time. Mr. Burbank said he wanted to take our affidavits in relation to the ether discovery. He did not say for whom he wanted to take them. He said he wanted to know what we knew about ether, or the discovery of it. He did not ask questions, but took down what we stated. He came in when we were very busy indeed, and we had to be as brief as possible. I think this was in February, 1847. Dr. Morton was not in the room when it was taken.

104th. Was this your phraseology to Mr. Burbank, "that is to say, about the 1st of July, 1846?"

Ans. I used it, I think; I don't think Mr. Burbank asked a question.

105th. Whether or not, if one of you three who were present, was at fault, in recollection or otherwise, another would prompt him, or suggest anything, such as a date, &c.?

Ans. I don't think they did.

106th. Was there any confusion or excitement in you or Spear or Whitman, when these affidavits were taken?

Ans. No, sir.

107th. Was there any haste, rapidity or hurrying?

Ans. No, sir.

108th. What time of day was it?

Ans. I can't say; I should think it was afternoon.

109th. Were the statements sworn to which Mr. Burbank reduced to writing? if aye, before whom? And how soon after they were taken?

Ans. I can't say, I am sure.

110th. Were there any bottles or jugs, or any wine or spirit to drink there, when these affidavits were taken?

Ans. No, sir.

111th. When first had Mr. Edward Warren any connexion with Dr. Morton?

Ans. I can't say; I should think it was in the spring of 1847.

112th. Was it before or after these affidavits by Mr. Burbank were taken?

Ans. I can't say that; I should think it was after.

113. After these affidavits by Mr. Burbank were taken, did you hear any talk by Spear and Whitman about experiments with ether by Dr. Morton?

Ans. I don't remember of having heard anything.

114th. When did you, if ever, hear of any experiment or experiments by Dr. Morton with ether, on a spaniel?

Ans. I can't say when I heard of it; I had heard of it.

115th. Before or after Edward Warren came?

Ans. I can't say.

116th. What are your pecuniary relations with Dr. Morton? Does he owe you anything or you him?

Ans. I don't know that I owe him, or he owes me; we are square in that respect, and have been for a number of years.

117th. At, or before, or after you gave your affidavit, dated March 25, 1847, referred to in the 26th interrogatory on page 79 of the minority report No. 114, what inducement, by way of gift or present, if any, did Dr. Morton hold out to you?

Ans. Not any.

118th. Did Dr. Morton ever give you an order on Wilson or any other tailor for a suit of clothes?

Ans. No, sir.

119th. Has Dr. Morton promised to give you a handsome reward when he should get his money, as he stated it, from Congress?

Ans. No, sir.

120th. Have you ever so stated?

Ans. No, sir.

121st. You say in answer to 29th interrogatory, "we reported to Dr. Morton the result"—what did Spear say to Dr. Morton?

Ans. I don't know whether he said anything or not.

Direct, resumed by Mr. Dana.

1st. When you say that Dr. Morton had two rooms, do you or not, include the little room partitioned off as part of the front room?

Ans. Yes, sir.

2d. Did the artificial or mechanical dentistry in which Dr. Morton was engaged, require the extracting of many teeth?

Ans. Yes, sir.

3d. In answer to the 63d cross interrogatory, you say that Dr. Morton told you he had inhaled ether? When was this? Was it before or after the case of Frost, and how long? How do you know this?

Ans. It was before the case of Frost, because after we began to give it to every person indiscriminately, just as they came in and wanted it; it was just after I bought the ether of Brewer, Stevens & Cushing and before Spear and I took it.

4th. At the time you gave your affidavit before Mr. Burbank, in what room and story was the laboratory?

Ans. It was in the third story and the back room.

5th. When had the laboratory been moved?

Ans. I can't say; it was moved in the fall 1846; I won't be positive of this; it might have been in the next spring.

6th. How near the time Dr. Keep came into partnership with Dr. Morton?

Ans. It was moved before the time Keep came in, I believe.

7th. In what part of the work was D. P. Wilson regularly engaged at the time of your affidavit?

Ans. I think he was one story below me; he was engaged in giving ether and extracting teeth.

8th. Was that work in which he was engaged carried on in the same story with the laboratory, after the laboratory was removed?

Ans. No, sir.

9th. Do you know for what cause Mr. Hemmenway left the establishment of Dr. Morton?

Ans. I do not.

WM. P. LEAVITT.

(B.)

Boston, *February* 13, 1849.

I, William P. Leavitt, of Boston, surgeon dentist, on oath depose and say, that on or about Tuesday, the 6th instant, Mr. Henry C. Lord called upon me at my rooms, in Tremont row, made himself known to me, and began a conversation about Dr. Morton's character and prospects; and after a good deal of circumlocution, told me that he had seen Mr. Thomas R. Spear, (of whom he spoke very highly), and obtained a statement from him as to the dates in his affidavit, and that Spear had said he could not swear that the dates were correct. I told him that if Spear had said anything of the kind, he had done very wrong, for the dates were correctly stated in Spear's affidavit, and that I knew them to be so. He then asked me how I knew them to be so. I then told him several circumstances that took place in June and July, 1846, and the early part of August, which made it clear to me that the experiments were made at the times stated by us and by Dr. Morton. Among others, I stated that I was absent attending court as a witness in the latter part of June of that year, and returned on the 3d of July, the day before the anniversary of independence, and found Dr. Hayden in Dr. Morton's office, and that the experiments and my connexion with them followed immediately thereupon. Mr. Lord seemed satisfied with my statements and made no further question as to dates, and asked me if it was my opinion that Dr. Morton had used sulphuric ether before his interview with Dr. Jackson. I answered, that was my belief. Mr. Lord then took his leave.

About half an hour after this, a note came to me from Mr. Lord asking me to step down to his office for a few minutes. I did not go. In about fifteen minutes Mr. Lord called, asked me into the entry, and said he wished me to do an act of justice to Dr. Jackson. I asked him what it was. He said he wished me to write him a note to the effect that it was my belief that Dr. Morton did not use sulphuric ether until it was suggested to him

by Dr. Jackson. I told him that my belief was the contrary of this, and that I could not write such a note. He then proposed that he should make such a statement and that I should confirm it in a note to him. This I refused to do. He then proposed that I should write a note to the proposed effect; that he would send it to the chairman of the committee of Congress with a request to return it, and that it should be returned to me, and never published, nor used in any other manner. In this connexion he told me that his brother had written to him from Washington; that if he could only get these statements from the witnesses, "the whole thing would be dished"—referring to Dr. Morton's petition.

He also made statements which I took to be inducements to me, to the effect that Dr. Morton had no chance of success—that Dr. Jackson had money enough, that I would not be a loser, and offered to show me a telegraphic despatch from his brother to the effect that two of the committee had assured him that no report would be made.

I again refused to write such a note. (Before this he had represented his object to be merely personal, and with no intention to use the note in the controversy, and only stated the plan of sending it to Washington upon a direct question put by me.) He then said he was very much disappointed in me; praised my character and appearance as to independence, and said he had hoped to obtain something from me. He then said that he should make a statement that I had told him that it was my belief that Dr. Morton had not used sulphuric ether before his interview with Dr. Jackson. I told him that if he did, I should contradict it. He said that then there would be his character against mine; and intimated that, in the public estimation, the scale would incline a little in his favor. I said "Very well." He then said "You did tell me so." I became excited, and answered, "Mr. Lord, you are a d——d liar." Mr. Lord immediately cooled down, and said he was very sorry there was such a difference; and I told him I was the same. I also told him that if I wished to make any further statement than my original affidavit I would let him know. I had no intention of making any such further statement, and have not seen nor heard of Mr. Lord since that time.

I have just heard that he has sent some affidavits to the committee of Congress relating to his conversations with Mr. Spear, and thinking it possible he may have alluded also to his conversations with me, I make this statement to contradict or explain the same, as may be.

I also solemnly depose and say, that I have no alteration to make in my affidavit published in "Littell's Living Age" of March, 1848.

WILLIAM P. LEAVITT.

SUFFOLK COUNTY, ss:

Then personally appeared the above named William P. Leavitt, to me personally known, and made oath that the above statement by him subscribed is true.

Before

RICHARD H. DANA, JR.
Justice of the Peace.

February 13, 1849.

I certify that I have compared the above with my affidavit, and that it is an exact copy thereof.

WM. P. LEAVITT.

The foregoing is the copy referred to by me in the answer of this deponent to the 26th direct interrogatory, as annexed, and marked B.

J. P. PUTNAM.

COMMONWEALTH OF MASSACHUSETTS, } ss:
Suffolk County,

We hereby certify that the foregoing is a true copy of the deposition *in perpetuum* of William P. Leavitt, taken before us, upon the petition of William T. G. Morton, under the statutes of this Commonwealth.

GEO. T. CURTIS,
J. P. PUTNAM,

Justices of the Peace and Counsellors at Law.

The extract below from report 114, page 31, is introduced in connection with the first preceding and second following affidavits:

"During the preparation of this report there was forwarded to the committee the affidavit of Henry C. Lord, one of the counsel for Dr. Jackson, and also the affidavit of George H. Palmer, and one by Dr. Jackson himself, from which it appears that Mr. Lord, the counsel, called upon Thomas R. Spear—induced Spear to visit him at his chamber, and held a conversation with him, and that his effort in that conversation was to get some admission from Spear that his testimony, given under oath in the case, was untrue. Lord and Palmer say that he did so admit. The witness Spear, who was afterwards called upon, testifies that he *did not*, and states facts which show an effort to entrap him in a mode not usually practised by the legal profession in the United States. Your committee give no weight to the alleged statements, considering the manner in which they were procured, even as stated by Mr. Lord himself. There was a like attempt to get a contradictory statement from Leavitt, similar in its character with that made with Spear, but more strongly marked by professional irregularity. These depositions in no respect modified the opinion of your committee as to the facts given in question, and only presents another most striking example of the caution with which testimony of the declaration of parties and witnesses should be received unsupported, and especially when contradicted by written papers."

Since Dr. Spear removed to California, where he was introduced into the practice of his profession by the mayor of the city of Boston, and former Secretary of State, Hon. J. P. Bigelow, who had known him from a boy; another statement from one Colvin Anger has appeared, which the above extract is applicable to.

Boston, *March 25, 1847.*

I, Thomas R. Spear, jun., of Boston, in the State of Massachusetts, depose and say—

That, about the first of August, 1846, at request of Dr. Morton, I inhaled a portion of ether, which William P. Leavitt brought from Brewer, Stevens & Co.'s, in a demijohn, in Dr. Morton's office. The rest of the young men were afraid to take it; but, having taken what I supposed to be the same before, at the Lexington Academy, I did not hesitate to take it when I learned what it was.

About a week after the ether was purchased of Brewer, Stevens & Co., Dr. Morton was expecting some persons at his office to witness an experiment, and he then offered me a sum of money if I would be present and inhale the ether. I went home and consulted my parents, and they advised me not to go. I have often heard Dr. M. say that, when he had completed his invention for extracting teeth without pain, he should be satisfied.

Ever after Dr. Hayden came into the office, Dr. Morton seemed wholly absorbed in making this discovery, and had a number of bottles, an India-rubber bag, &c., &c., with which he prosecuted his experiments in the little room adjoining the front office, where he frequently locked himself in.

Dr. Morton offered me five dollars if I would get some one to come into the office and to have an experiment tried upon him, of having a tooth extracted while under the operation of gas. I went, accordingly, down to the wharves, in company with Wm. P. Leavitt, but did not get any one to have the experiment tried upon.

THOMAS R. SPEAR, JR.

COMMONWEALTH OF MASSACHUSETTS, } ss:
Suffolk county.

I, Thomas R. Spear, jr., of Boston, surgeon dentist, on oath depose and say, that, on Sunday, February 4th instant, Mr. Lord, one of the counsel for Dr. Charles T. Jackson, called at my lodgings, No. 20 La Grange Place, at about noon, and asked me to go with him to his room at the United States hotel, upon some business of great importance, and was anxious I should go forthwith. He did not tell me what he wished to see me about, nor did I know who he was; but after he left, it occurred to me from his name, (which he gave me,) that he was Dr. Jackson's counsel. I could not go with him, but promised to call at his lodg-

ings soon after. Thinking that the business might relate to the ether controversy, I took with me the Living Age, which contained my affidavit.

I had no desire, and had intimated none, to see Mr. Lord, or any one else on this subject, or to make any change in my affidavit.

I found at Mr. Lord's room a gentleman, whom he introduced as his room-mate, Mr. Palmer. Mr. Lord was very attentive, and unaccountably cordial in his manner; expressed a strong friendship for me, and said he was always glad to see me, and offered me a cigar. He spoke against Dr. Morton's character, and his chances of success at Washington, and gradually introduced the subject of the statements in my affidavit. I immediately told him I did not wish to have any conversation upon the subject, or any controversy. He said that our conversation was strictly confidential, and that he should make no use of anything that passed between us. I did not like his mode of proceeding, and something was said by one of us about the third person being present. But he said he was making inquiries for his own personal satisfaction, and for no other object.

Mr. Lord then proceeded to put various questions relating to facts and opinions, many of which were upon suppositions and hypotheses very difficult to answer, tending to confuse a person, and to give indistinct or false impressions. Some of these questions I declined answering; others I answered indefinitely, and some were incapable of being answered. Neither Mr. Lord nor Mr. Palmer took any minutes while I was present.

He then desired me to call at his office the next day at ten o'clock. I promised to do so; but being unwell, I called on Tuesday, February 6. He had a written statement which he said was what I had said at his room on the Sunday before, and which he read to me. I denied that that was a correct statement of my conversation, and told him that I had said nothing of the kind. He then asked me to put a statement in writing. I told him that I would consider of it; but that, if I did give a statement, it would be a very different one from that which he had prepared. He seemed quite angry. The next day I called and told him that I preferred not to make any statement, and expressly told him that I had no recollection of having said anything of the character of the statement he had prepared.

I make this affidavit, because I am informed that Mr. Lord has sent to Washington an affidavit relating to my conversation with him. As I have not seen his affidavit, I am not able to meet it in detail; but solemnly depose and say, that I have no alteration to

make in my original affidavit, which appears in Littel's Living Age of March, 1848.

THOMAS R. SPEAR, JR.

BOSTON, *February* 13, 1849.

SUFFOLK, ss:

Then personally appeared the above named Thomas R. Spear, to me personally known, and made oath that the above statement, by him subscribed, is true.

Before me,

RICHARD H. DANA, JR.,
Justice of the Peace.

BOSTON, *February* 13, 1849.

BOSTON, *March* 25, 1847.

I, Francis Whitman, of Boston, in the county of Suffolk, and State of Massachusetts, student at dentistry, on oath depose and say—

That I have often heard Dr. Morton speak about discovering some means of extracting teeth without pain. This discovery appeared to be the subject of his thoughts and investigations during the greater part of last year, *i. e.*, 1846. One day—I think it was previous to July, 1846—Dr. M., in speaking of the improvements he had made in his profession, and of some one improvement in particular, said, if he could only extract teeth without pain, he “would make a stir.” I replied that I hardly thought it could be done. He said he believed it could, and that he would find out something yet to accomplish his purpose. In a conversation with Dr. M. some time in July, he spoke of having his patients come in at one door, having all their teeth extracted without pain and without knowing it, and then going into the next room and having a full set put in.

I recollect Dr. Morton came into the office one day in great glee, and exclaimed that he had “found it,” and that he could extract teeth without pain! I don't recollect what followed; but, soon after, he wanted one of us in the office to try it, and he then sent William and Thomas out to hire a man to come in and have an experiment tried upon him. After all these circumstances happened, Dr. Hayden advised Dr. Morton to consult with some chemist in relation to this discovery. I went, at Dr. Morton's request, to see if Dr. Jackson had returned, (he having been absent from the city,) but found that he was still absent.

I told Dr. Morton I knew what it was that William had bought,

and said it was chloric ether. Dr. M. then said he wished to know if ether would dissolve India-rubber, and sent William P. Leavitt to inquire of Dr. Gay if it would.

About this time, Dr. M. asked me to get the books on chemistry and find what they said about ether. I did so, and read it over to him, and I think he went to Burnett's to see if he could not find something there.

After the first announcement of the discovery in the papers, I went to Dr. Jackson's, and he spoke to me of some notices in the papers; but, immediately after, said he did not "care how much Dr. M. advertised, if his own name was not drawn in with it." A week or two after this conversation I was at Dr. Jackson's, when he asked me how we got along with the gas. I told him that we got along first-rate. He then said he "did not know how it would work in pulling teeth, but knew its effects at college upon students, when the faculty had to get a certificate from a physician that it was injurious, to prevent them from using it;" but that he "did not know how it would operate it pulling teeth."

FRANCIS WHITMAN.

I, Theodore Metcalf, of Boston, in the county of Suffolk, and Commonwealth of Massachusetts, of lawful age, being first duly sworn, depose and say, in answer to interrogatories by Richard H. Dana, jr., esq., counsel for Dr. William T. G. Morton:

1st. Where is your residence? How long have you resided there? Were you a chemist and druggist in Boston? In what street? From what time to what time? What public institutions did you supply?

Answer. I reside in Boston. I have resided there since 1837. I was a chemist and druggist in Boston, in Tremont street, from 1837 to 1845 or 1846. I supplied the city institutions at South Boston, all of them, and the Marine Hospital at Chelsea.

2d. Who was your successor? When did he take possession of the premises?

Ans. Mr. Joseph Burnett was my successor; he took possession of the premises in January, 1845.

3d. Where was Dr. William T. G. Morton's office? How near to your place of business? Did you know him? Did he deal with you; and how much? What was his occupation?

Ans. Dr. Morton's office was in Tremont street, within a few doors of my place of business. I did know him from his first coming to Boston; he was my customer to the amount of several hundred dollars per year. There was seldom a day when the Doctor was not in the store. He was a dentist. I should say, from the nature of the articles which he purchased of me, that the greater part of his business was mechanical dentistry. This

I judge of from his purchases, and not from absolute knowledge.

4th. Have you visited Europe? How many times? When did you sail; in what vessel, and from what port? What countries did you visit; and when did you return? Where have you resided since your return?

Ans. I have visited Europe once. I sailed on the 6th of July, 1846, in the Joshua Bates, from Boston. I made the general tour of Europe, visiting all but the extreme parts. I returned in October, 1847. I have resided in Boston since my return.

5th. Have you been engaged, and how much, in chemistry since your return?

Ans. I had a manufactory of chemicals at Roxbury for little more than a year.

6th. Have you now, or ever had any, and what relation or connexion of blood, marriage, or business with Dr. Morton?

Ans. None by blood or marriage, and by business only previously to 1845, as I have stated.

7th. Do you know Dr. Charles T. Jackson, of Boston? How long, and how intimately have you known him?

Ans. I have known him ever since my first residence in Boston. I have always had an acquaintance with him, and always been on friendly relations with him.

8th. When and where did you first hear of the ether discovery, and how? What account did you first hear? (Objected to.)

Ans. I think it was in Italy where I saw an account of it in a French journal; it was in the winter of 1847. It was a general account of the anæsthetic effects of ether, and ascribing the discovery to a dentist of Boston, without any name. It must have been in January or February of that winter, or March.

9th. Did you ever have any conversation with Dr. William T. G. Morton on the subject of the properties and effects of ether? If yea, when was it? State particularly all your means of knowledge as to the date, and especially as to its being before or after you heard of the ether discovery, and before or after your visit to Europe.

Ans. I did have a conversation with him on that subject. It was previous to my departure for Europe; it was the spring or early summer of 1846. I know it was previous to my departure for Europe, because, when I saw this account in the French journal, I fixed it in my own mind that Dr. Morton was the man, remembering this conversation; and I think I mentioned it to persons who were with me.

10th. Who were these persons? Are you sure that the account which you saw gave no name?

Ans. I can't be positive who the persons were; I think they were my travelling companions—two gentlemen from New York—but I can't be certain. I know that I read the journal in a *Café*,

This testimony fixes beyond all controversy, the fact that Dr. M. was experimenting with ether prior to 6th July, 1846, and consequently, that he could not have derived his first idea on that subject from Dr. Jackson on 30th September following, as alleged by that gentleman.

There can be no mistake as to date, and there is no pretence that the witness [is not of the highest credibility.

and spoke of it at the time. I am confident that the account mentioned no name.

11th. Where was this conversation with Dr. Morton? State the circumstances fully, and all that was said or done on either side.

Ans. It was in my store in Tremont street, then occupied by Mr. Burnett. Dr. Morton came in, and had a vial filled with sulphuric ether. While he had it in his hands, he came to me and asked various questions with regard to its qualities and medicinal effects. He asked with regard to its effects when inhaled. I spoke of it as producing the same effects as nitrous oxide gas when inhaled; and I related to him some experiments of mine in taking and giving it for purposes of exhilaration. I stated to him also what was the then general belief, that if inhaled in excessive quantities, its effects would be dangerous, if not fatal. Either Dr. Morton or myself, I don't know which, referred to the experiments of Dr. Wells with nitrous oxide, in extracting teeth without pain, which had failed a short time before—I can't tell how long. [I can't say whether it was at the time of this conversation, or when I first read the journal in Italy, that the idea flashed upon my mind that Dr. Morton was trying to follow up what Dr. Wells had failed in—that is, to find something for a substitute for the nitrous oxide which Dr. Wells had failed in using.]

(The part in brackets objected to by Mr. Jackson as not responsive, and as not proper evidence. J. P. P.)

12th. State all you saw or did with reference to this vial. Describe it? How large was it? What did you do to it? How do you know it was sulphuric ether? Why may it not have been chloric ether, or nitrous oxide?

Ans. Dr. Morton brought in the vial which he had filled. The vial had on an old and dirty label, on which was printed sulphuric ether. The label was not put on at the time. I recollect perfectly well having the vial in my hands, and uncorking it and smelling it. It was a two or four-ounce vial, as large as that. I know it was sulphuric ether, and not chloric ether or nitrous oxide.

Evidence
of use of
ether be-
fore that
date.

13th. What did you know of Dr. Wells's experiment, of which you have spoken?

Ans. Nothing, except by hearsay. Dr. Wells told me that he had come to Boston to try these experiments. It was before this time. He said that it was a form of nitrous oxide, in reply to my question whether it was not nitrous oxide. He said it was a form of nitrous oxide deprived of its noxious qualities. He asked me who he could get to prepare it for him. I referred him to Dr. Morton, who was then a student with Dr. Jackson, saying that he would inform him, or go to Dr. Jackson with him, or something like that. He stated to me that he was going to extract teeth without pain, at some public place, and that he

had invited all the physicians, or many of the physicians. There was a general rumor that the experiment had failed.

(Mr. Jackson objects to all the conversation with Dr. Wells.
J. P. P.)

14th. You speak of a "general rumor" that Dr. Wells's experiment had been tried in Boston, and had failed. How far was this a general rumor? How far was it known in Boston that Dr. Wells had tried this experiment?

Ans. I heard it through physicians who were present. I don't know whether it went beyond them or not. A more particular account of it, however, I got from Dr. Morton.

15th. When and where did Dr. Morton give you this account of Dr. Wells's experiment?

Ans. At Mr. Burnett's store, the morning after the experiment. The time I can't tell. I remember it was the next morning, because he said that Dr. Wells had left in the early train, in great disgust, or disappointment, leaving him to settle up the matters connected with it. This was while I kept the store, I think, though I am not positive.

16th. Have you lived in Hartford? When, and in what occupation? How long have you known Dr. Wells?

Ans. I lived in Hartford for ten years, just preceding my coming to Boston, and knew Dr. Wells as a dentist there, but I had no particular acquaintance with him.

17th. Did you supply Dr. Charles T. Jackson while you kept this place? Do you know of anything which ever led you to suspect that Dr. Jackson was experimenting on ether, with reference to prevention of pain?

Ans. I remember to have sold him many things, but not chemicals generally. I know of nothing which led me to suspect that he was experimenting in ether.

18th. Where is Dr. Jackson's laboratory? How long has it been there? How near is that to the Massachusetts General Hospital? Which is nearest to it, his laboratory, or Dr. Morton's rooms?

Ans. His laboratory is in Somerset street, No. 20, or 21. It was there in 1846. I know not how long previously. I can't give the distance from the hospital; I should say it was twelve or fifteen minutes walk from there, and about three minutes nearer than Dr. Morton's rooms. Yet he did not take the trouble to witness the experiments.

19th. How long was the conversation between yourself and Dr. Morton on the subject of ether? State anything further said, on either side, you may now recollect.

Ans. The conversation was half an hour long at least. I can't remember anything more than I have stated; it was a general conversation, entirely about the inhaling of ether, interspersed with anecdotes on the subject.

20th. State anything which Dr. Morton said, or asked, tending to show his knowledge or ignorance of sulphuric ether, and the extent thereof.

Yet Dr. Jackson pretends that on 30th Sept. he was wholly ignorant what ether was.

Ans. I can't remember any particular thing, but he knew something about it, as was manifest from his questions. The questions he asked showed some knowledge on the subject. When he went away he knew as much about it as I did, for I gave him all the information which I had.

21st. Please look at the memorial to the trustees of the Massachusetts General Hospital, made by the Messrs. Lord, in behalf of Dr. C. T. Jackson, of 1849, pages 9 and 10. Have you any statement to make respecting the same?

This is worth reading, p. 229.

Ans. I can state that the statement in the memorial of what I stated to them is generally incorrect. I made an answer to it at the time, which is document No. 35, appended to the minority report No. 114, made to the 2d session of the 30th Congress, dated February 28th, 1849, a copy of which I hereto annex, and make a part of this my answer.

(This copy is annexed marked A. J. P. P.)

22d. Do you wish to make any change, in or addition to, your letter annexed in reply to the last interrogatory?

Ans. I wish to make no change in it, and know of nothing to add.

Cross Interrogatories, by A. Jackson, jr., esq., counsel for Dr. Charles T. Jackson.

1st. Whether or not the conversation testified about at Mr. Burnett's, between you and Dr. Morton was a prolonged one, or was it a casual and brief one?

Ans. It was casual so far as not being premeditated. It was half an hour or more in duration.

2d. Had your conversation with Dr. Morton any relation to the anæsthetic effects of sulphuric ether?

Ans. To my knowledge at that time, none.

3d. Did any fact by you communicated to Dr. Morton, or any statement made, relate to the prevention of pain by sulphuric ether in surgical operations of any kind?

Ans. Nothing from me of that kind. I mentioned to him an account of a person who had injured himself while under the influence of ether, and did not know that he had been hurt.

4th. In his conversation with you, whether or not Dr. Morton showed any knowledge of the effect of sulphuric ether in preventing sensations of pain in surgical operations?

Ans. No; I don't know that he did.

5th. Whether or not you were aware that Dr. C. T. Jackson, shortly before the time you had this conversation with Dr. Morton, advised him, Morton, to employ strong chloric ether or solu-

tion of chloroform in alcohol as a substitute for creosote in deadening the pain of an inflamed carious tooth?

Ans. I don't know that he had informed Dr. Morton anything of the kind. I knew, through Dr. Keep, that Dr. Jackson had recommended to him a strong chloric ether to cure toothache. This was a year previous to this time, if not more.

6th. What was the account referred to by you of a man who did not know of his being hurt?

Ans. In giving a general account of my administering ether, I spoke of a person to whom I had given it, who was exceedingly wild, and who injured his head while under the influence of it, and did not know, when he got over the influence of the ether, that he had hurt himself until it was called to his attention. This was not a new fact, but was well known at the time.

7th. You have spoken of stories and anecdotes which you told to Dr. Morton. Were any of those matters from your own experience? If aye, what?

Ans. They were all within my own experience, so far as I now recollect. One of the incidents is the one I have just related. Another was the case of a man with whom I sat up all night while under the influence of ether, and a good many ludicrous things occurred, which I related to the Doctor.

8th. Whether or not you told Dr. Morton of the effect which the ether had on those persons to whom it had been given by you? and if so, what did you state was the effect of the ether?

Ans. The two preceding answers, will answer this. I stated that its general effect was exhilaration, and incidentally I mentioned this case of insensibility.

Evidence that Morton knew it would produce insensibility previous to July 6.

9th. Whether or not there are various kinds of ether—ether with various names? and whether or not, at this interview, Dr. Morton said anything about this kind of ether which he held in his hand, that it had not served his purpose.

Ans. There are many kinds of ether, or several kinds and qualities, varying in name. He said nothing to me about the ether in his hands not serving his purpose. The information was all on my side, though he showed by his questions, that he knew something of its nature.

10th. Whether or not the questions referred to by you in your answer to the 20th interrogatory, were or were not such as any one familiar with Dr. Wells and his experiments, and interested in the same, would or might have asked for?

Ans. At the time those questions were asked, I did not know that there was anything then in them more than any person interested in the subject might have asked, but subsequent events connected with my recollection of his manner, have given me the impression that he was then seeking for this object, which has been attained, the anæsthetic effect.

11th. Whether or not the substance of your reply to Dr. Morton, in answer to his questions, was that sulphuric ether was used to get oil or grease out of coat collars, and for boys to get drunk on or excited by?

Ans. I dare say I might have mentioned that as one of its qualities, what it was used for, though I don't now recollect; I gave a very general description of its various uses, as then known.

12th. Has it not been known for a very long time (from time immemorial) that the inhalation of sulphuric ether would produce drunkenness?

Ans. Yes, that has been a fact known for a long time; that is, that it would produce exhilaration, which is sometimes called drunkenness. Its effect is always compared to that of nitrous oxide gas, rather than to that of alcohol, as exhilarating rather than intoxicating.

13th. Whether or not such questions as Dr. Morton addressed to you might have been put by a person ignorant of the qualities and properties of sulphuric ether?

Ans. I think not, that is by one who was entirely ignorant.

14th. How long was the time, as near as you can state it, between the morning when Dr. Morton gave you the account of the failure by Dr. Wells with his experiment in Boston, and the time when Dr. Morton had the phial in his hands, of which you have spoken.

Ans. I should think it was a year or a year and a half; but I have no means of fixing the time of the first conversation about the experiment.

15th. You have spoken of the nearness of Dr. Morton's place to your own, and of the frequency of his presence in yours. Whether from the time of the account by him of Dr. Wells's experiment, the morning after it failed, to the time of your departure for Europe, you knew, or heard of, or from him (except those matters before stated by you) anything which tended to show any use, by Dr. Morton, of sulphuric ether, or experiments with it?

Ans. I was not in that place of business for a long time after the experiments by Dr. Wells. As I have before stated, I sold out in January, 1845, and during the whole summer of that year I was out of town, and heard nothing about the use of ether by Dr. Morton until this conversation which I have stated, which occurred in 1846.

THEODORE METCALF.

A.

To the Trustees of the Massachusetts General Hospital.

GENTLEMEN: In the memorial addressed to your honorable board by the Messrs. Lord, occurs the following passage:—

“Mr. Metcalf has authorized your memorialists, should they publish again in Dr. Jackson’s defence, to make the following statement from him. Dr. Morton and myself, in the conversation to which my letters relate, *did not* converse together about sulphuric ether, especially its effects when inhaled as a prevention of pain in dental operations, as stated by Mr. Bowditch. In so stating, he entirely misinterpreted the meaning of my letter. The conversation on my part had no reference to sulphuric ether in any anæsthetic sense; I spoke of it as an *exhilarant*, and an *exhilarant only*. Mr. Metcalf assured one of your memorialists, that whatever might be his apprehensions, he *could not state* that the conversations had reference to sulphuric ether, in any anæsthetic sense, on the part of Dr. Morton, or that Dr. Morton’s inquiries were not such as ordinary curiosity would have suggested to the mind of any one, or that he himself received from the conversation any impression that Dr. Morton was seeking to discover anæsthetic properties in sulphuric ether.”

As the claim to *authority* is entirely unfounded, and the statement of my conversation with the memorialist so distorted as to convey false impressions, I have not only the right, but am under an obligation to correct them.

Some months since, at the written request of Mr. J. L. Lord, I called at his office; he desired from me a more particular statement of my interview with Dr. Morton, than I had made in my note to Mr. Bowditch; I told him that all the material facts were already given in my notes; that I could go no further without mingling *impressions* with facts, which I had been careful not to do notes; *that all my impressions would make against his* in the *client*, &c. Mr. Lord desired to know what those impressions were, and after putting questions upon the subject in almost every variety of form, he wrote what he said he considered was the substance of my answers, and asked for it my sanction; I declined giving it, as his memorandum contained the same errors which are to be found in the above extract. Mr. Lord expressed surprise that he should have so misunderstood me, and after still further conversation, proposed to draw up another statement, which he did, and showed to me a day or two after. This second statement, although couched in different phraseology, contained some

of the same misrepresentations as the first. *Feeling now that Mr. Lord had no desire to understand what I really meant*, and that he caught at single words and forms of expression, made use of in answer to his varied queries, I told him that neither of his memoranda contained the true meaning of what I had said to him, and that I could not sanction them. I then requested him to publish nothing, without first submitting it to my inspection. *He said he certainly should not*, and requested that I should, myself, write the substance of that part of my conversation with him which bore upon the case, and which he had failed to write satisfactorily. This I conditionally consented to do, but upon reflection wrote merely the following note:

September —.

GENTLEMEN:—It is only at your urgent and repeated solicitation that I am induced to say another word upon the facts known to me, with regard to Dr. Morton's discovery. From my former notes, as they appear in Mr. Bowditch's pamphlet, I have not one word to subtract or alter. I have stated in those notes all the material *facts* which I distinctly recollect, and now, as then, am ready to swear to them. In writing them, I carefully avoided all confusion of impressions with facts. The *impressions* which I have with regard to my conversations with Dr. Morton *would not help your case*, and could not, perhaps, be urged as *proof* on the other side; and I have concluded, upon reflection, not to make them public. My *positive testimony* will be received for what it is worth, and I desire to influence no one in this matter of mere opinions and impressions.

Yours, &c.,

T. METCALF.

Messrs. LORD.

The Messrs. Lord, instead of publishing the above note, which is the only thing they had a right to do, publish a statement similar to that to which I had refused my assent, do it in violation of a promise not to publish anything without first submitting it to me, and they add to a breach of promise, a positive falsehood in claiming my authority.

The "statement" which is printed with quotation marks, as if it was mine, commenced with a sentence so constructed and pointed, as to carry a false impression. I stated to Mr. Lord, (what I had before written to Mr. Bowditch,) that Dr. Morton did converse with me about sulphuric ether, especially its effects when inhaled.

Mr. Bowditch, so far as I remember, has nowhere stated that we spoke of it "as a preventive of pain in dental operations." *The next short sentence in the "statement" is untrue. I never said to Mr. Lord that the meaning of my letter had been entirely*

misinterpreted by Mr. Bowditch; I told him that I had read Mr. B.'s pamphlet, and had seen nothing in it but correct statements and fair inferences. Mr. Lord then said that Mr. B. had stated that the conversation between Morton and myself was about sulphuric ether as a preventive of pain in dental operations, and he read a sentence from the pamphlet before him, which seemed to sustain his assertion. Upon which I said that such a statement or inference could not, perhaps, be fairly drawn from the words of my letter alone; but I thought that the inference drawn by Mr. B. from my letter and the corroborative evidence in the case, was fair and natural. The next two short sentences in the "statement" are fairly enough stated, except that to give the last one of them its true meaning, the personal pronoun should have been italicised, instead of the noun and adverb. Here the claim of your memorialist to *authority* from me seems to cease, and they proceed to state what one of them was *assured* of by me. This paragraph is also incorrectly stated; I told Mr. Lord that I could not state positively that Dr. Morton spoke of sulphuric ether in an anæsthetic sense; but that the tenor of his conversation, his numerous questions, and the reference made by one of us to Wells's experiments, did leave such an impression on my mind. Mr. Lord asked if I could swear that this might not have been an impression received subsequently, and which I had so mingled with former facts, as to believe it an impression formed at the time. I still said to him, that although I would not swear that I had this impression at the time of the conversation with Dr. Morton, yet I believed I had. This belief is founded partly upon my memory of the manner of the conversation with Morton, and partly upon the fact, that *when in Italy, months after, I saw for the first time an account of etherization in a French journal, in which its discovery was ascribed simply to a "Boston dentist;"* I said at once, that I was sure Morton must be the man, for he was engaged upon ether before I left home, and that I now knew why he had been so curious, and at the same time shy in his conversation with me.

I may not have given in my statements and letter above, the precise words used at the time by Mr. Lord and myself, but I have endeavored to give, as nearly as possible, the substance of those parts of our conversation which he has misrepresented in the memorial.

That Mr. Lord sought the interview for the purpose of catching me in some apparent contradiction by cunningly devised questions, I have not now the least doubt, and failing to succeed as well as he had hoped, he resorts to the misrepresentations which I have pointed out.

With great regret that I am forced to trouble your honorable board with so long a letter, I am, gentlemen, very respectfully your obedient servant,

THEODORE METCALF.

Boston, January 6, 1849.

The above is the copy referred to by me in my answer to the 21st direct interrogatory, which I annex and make part of my answer to that interrogatory.

THEODORE METCALF.

The foregoing is the copy referred to by me in deponent's answer to 21st direct interrogatory, as annexed and marked A.

J. P. PUTNAM.

COMMONWEALTH OF MASSACHUSETTS, } ss.
Suffolk county,

We hereby certify that the foregoing is a true copy of the deposition *in perpetuam*, of Theodore Metcalf, taken before us upon the petition of William T. G. Morton, under the statutes of this Commonwealth.

GEORGE T. CURTIS,

J. P. PUTNAM.

Justices of the Peace and counsellors at law.

Boston, December 14, 1852.

I, Joseph M. Wightman, of Boston, in the county of Suffolk, and Commonwealth of Massachusetts, of lawful age, being first duly sworn, depose and say, in answer to interrogatories by Richard H. Dana, Jr., counsel for William T. G. Morton:

1st. What is your occupation, place of business, and residence, and how long have they been so?

Ans. I am a philosophical instrument manufacturer; I reside in Boston, and my place of business is 32 Cornhill, in Boston; I have been a resident in Boston always; I was born here; I have been in this business since 1836, as a master, and at the present place of business during the whole time.

2d. What public offices do you hold, or have you held, during the last ten years?

Ans. I have been a member of the Grammar School Committee of the city of Boston for four years; I have been chairman of the

Executive Committee of the Primary School Committee for four or five years; I have been a member of the Legislature of Massachusetts two years.

3d. Have you been in the habit of lecturing and experimenting on any, and what, scientific subjects, and how long, and where?

Ans. I have been in the habit of lecturing and giving experimental lectures on science since 1837, on all the various branches of natural philosophy; I have lectured before the Providence Mechanics' Institution, the Lowell Mechanics' Association, the Salem Mechanics' Association, the Marblehead Lyceum, in Newport, Great Falls, Boston, repeatedly, and other places; I also assisted Professor Silliman in the winters of 1841-2 and 1842-3, in his lectures before the Lowell Institute, and I also assisted Professor Lovering in his lectures before the same Institute. I am constantly making experiments on scientific subjects; my business is of such a nature that it is one constant series of experiments from beginning to end.

4th. Have you known Dr. Charles T. Jackson, of Boston; how long, and how intimately?

Ans. I should think I had known him intimately for ten or twelve years, or fifteen; I should be certain it was fifteen, and might go back farther than that, quite intimately; I have been associated with him by lecturing before the same associations with him; he has been to my rooms and had conversations with me on various subjects—scientific subjects. We belong to the Warren Club together, and the Natural History Society.

5th. Do you know Dr. William T. G. Morton? When did your acquaintance with him begin?

Ans. I do know Dr. Morton; my acquaintance with him began in the summer of 1846.

6th. Have you any connexion of blood, marriage, or business with him, or have you ever had?

Ans. No, sir.

7th. Please to state the circumstances of your first acquaintance with him?

Ans. Dr. Morton visited my rooms to procure some instrument for exhausting the air between the plate and the gums, in matters of dental operations; that was the object of his visiting my rooms, and then a conversation ensued with regard to the whole subject of atmospheric pressure; he came several times in relation to the subject. On one of these occasions, as he came up the stairs, I met him, and made some remark like this: "Whether he had satisfied himself that I was correct in the impracticability of the process which he proposed." His answer was, that he was engaged in another matter of much greater importance. After some little conversation in reference to the first subject, that is, the atmospheric pressure, I think we went down stairs together. Before we went down stairs, however, he asked to see some India-rubber

All this is fixed clearly, as prior to 28th Sept. See answer to 12th interrogatory.

bags, which he said he had seen below. I showed him the bags in the room below, and after examining them, he asked me if they would hold ether. My answer was, that I thought not, because ether was used to soften rubber; that I knew it, because I had softened the common India-rubber flasks or bags, and then, by inflating them, produced large bags of rubber, extremely thin. He then inquired whether, in my opinion, oil-silk bags could be used. I told him that oil-silk was made by filling the pores of common silk with a preparation of linseed oil; that I presumed it would not answer, but as I had no practical knowledge in relation to that matter, I advised him to call on Dr. Jackson, who could probably give him the necessary information. Dr. Morton replied that he was acquainted with Dr. Jackson, that he had been a student with him, and I think resided with, or was acquainted with his family, and was surprised that he had not thought of inquiring of him before. He then left me. I believe that is all the conversation which took place at that time.

8th. Did you have any conversation with Dr. Morton at that time, or when, on the subject of mesmerism? State all that was said.

Ans. At this time we were examining the bags down stairs, which were taken from a drawer, when Dr. Morton asked my opinion of mesmerism. My reply was, that I had but little faith in it, for although some parts of it were inexplicable, yet I believed that much of it was due to the imagination. As to the power of the imagination upon the mind of an individual, I stated to him that I had recently read an account of an experiment upon a criminal by some surgeons, who proposed to bleed him to death, instead of which they blindfolded him, laid him in a proper position, and bandaged his arm, and after pricking the skin, they caused warm water to trickle down his arm, as if the blood was flowing. He supposed that he was bleeding, and with this idea the surgeons observed his pulse to fall gradually, until, when they came to remove the bandage, they found that the man had died under the experiment. My impression is that Dr. Morton said something of this kind, that it was a very singular circumstance. He stated, when he left me, as I recollect, that he should go to Dr. Jackson's and find out about the effect of the ether on the bags.

9th. When Dr. Morton asked you if the India-rubber bags would hold ether, did he mention what kind of ether he was inquiring about? What was it? Are you sure? and why?

Ans. I asked him, when he asked me the question, "if it was sulphuric ether." He said it was. I am sure, because of the subsequent conversation with him of the effect of the ether in softening the bags. I knew of no other kind of ether which would have that effect. When he asked me about the effect of ether upon the bags, my first question to him was, "I suppose you mean sulphuric ether," and he replied "that he meant the common ether." I think these were his words.

Yet Dr. Jackson's whole case depends on the pretence that on the 30th Sept. 1846, Morton was wholly ignorant of ether, and received the first hint to use it from him.

This farther confirms the fact that this was prior to the interview with Jackson, as he himself says Morton narrated the anecdotes to him then.

10th. Did you, or not, consider it material, before answering his question, to hear whether it was or not sulphuric ether that he referred to?

(Objected to, as the mere opinion of the witness as to what he deemed material.)

Ans. Yes, sir.

11th. Was the information you gave him based upon the supposition that he was inquiring about sulphuric ether? Had it been nitric, or chloric ether, could you have given him the same answer, or any answer?

Ans. The information which I gave him was based upon the supposition that he was inquiring about sulphuric ether. I knew that there were various other ethers, but I had no knowledge of their effect upon India-rubber or organic substances.

12th. State all the subsequent interviews between yourself and Dr. Morton, relating to these matters.

Ans. My impression is, that the next time I saw Dr. Morton was in the cars on the Worcester railroad, when he was going to West Needham, and I was going to my family, who were boarding at Dover. I was in the habit of going to Dover in the five o'clock train, Saturday afternoon, and remaining with them until Monday morning. On several of these occasions, in the cars, I met Dr. Morton, and had conversation with him. I don't recollect any particular conversations with him on this subject, in the cars. The conversations were rather of a desultory character, in reference to the subject of dentistry. My family went to Dover on or about the first of August, 1846, and returned on the 28th of September. There were not many persons in the car on the day of our return from Dover to Boston. Dr. Morton got into the cars with me at West Needham. After some little time, I spoke to Dr. Morton, who had in his hand a boquet of flowers. I made some inquiry about them. He stated that they were from his garden at West Needham. I told him that I was returning with my family to Boston, and he inquired if it was Mrs. Wightman who sat with me. He then asked me if I would accept of the flowers for Mrs. Wightman. I gave them to her. [She then whispered to me and asked me who it was. I replied that it was Dr. Morton, and introduced them, I believe, though I am not certain. She inquired of me who Dr. Morton was. I stated to her that he was a dentist, who was experimenting upon the relief of pain in dental operations, or something substantially to that effect. I made the remark that Dr. Morton was trying to keep it secret, but that I thought I knew what it was.] From that time, I don't think that I had any interview with Dr. Morton for a long time afterwards. The next interview, as near as I can recollect, which I had with Dr. Morton, was one morning passing down Tremont row. I met Dr. Morton opposite the Pavilion

This date is positively fixed by entries in Mr. Wightman's cash book. (See p. 256.) The original leaf of which was cut from the book on this examination, is annexed to this deposition, 26th interrogatory.

The part of this answer objected to, is clearly competent

and most forcible, to show the impression on the witness's mind at the time.

Hotel. He asked me to step into the office of the hotel for a few moments, stated that he had never settled with me for the articles which I had furnished in his experiments, and desired me to make out a bill. I told him that I believed I had no account with him, that the articles were very trifling, and as he had been in the habit of taking articles and then exchanging them, I thought I had no entry of them in the books. He expressed his regret, and wished me to look over the books to see if I had no charge against him, of any dates. In conversation with him on that occasion, he stated to me that there was some disagreement between him and Dr. Jackson, and that he was very desirous of fixing the time that he (Dr. Morton) first began his experiments upon ether. I told him that I did not then think of any way by which I could fix the date of his visits to my rooms, but I would examine the books carefully, and see if there were any entries which would aid in fixing the time. The result of this examination was that I had no charges against him of any kind, but it occurred to me that the subject was introduced in the cars, on the return of my family from Dover. I then examined my cash account, and found entered on the 28th of September, 1846, "Cash paid, expenses from Dover."

(The portion of the answer in brackets is objected to. J. P. P.)

There are subsequent entries in the same book on the 29th and 30th of September. I stated the result of this investigation to Dr. Morton. I was mistaken in saying that this interview with him at the Pavilion was the first which I had had after meeting him in the cars on the 28th of September. Shortly after my return from Dover, early in October, Dr. Morton procured of me several articles of glass apparatus for the purpose of inhaling ether. At that time I knew it. He stated to me what he wanted of the articles. I think he said that he wanted the apparatus to breathe ether. I asked him if it was not dangerous to the lungs. He said no; that Dr. Jackson said it was not, and that he had tried it himself. He took, at that time, several glass articles. I don't recollect particularly what these articles were. One of them was a globe receiver, I think. A few days afterwards he came to me and asked me to fit him up a piece of apparatus, as Dr. Warren was to administer the ether at the hospital the next day. I told him I was very busy, but, at his earnest solicitation, I fitted up a glass globe receiver, by attaching a pipette, or dropping tube, to the tubular of the retort, by means of cork. I used a round rasp to perforate the cork to admit the pipette, and then made with the same rasp some grooves on the outside of the cork to admit the air into the globe to mix with the vapor of the ether. Dr. Morton stated to me that it was necessary that the air should be mixed with the vapor and breathed. He took it away and expressed himself satisfied with it. He was much excited at the

time. I recollect very distinctly that part of it. From that time I think I had no interview with Dr. Morton until I met him at the Pavilion.

13th. Please produce your cash-book, that it may be marked by the magistrates; and copy from it the entries of which you have spoken, and make them a part of this answer.

Ans. I will annex the original leaf from the book.

14th. Did your wife come in the cars with you and Dr. Morton on any other day after your removal into the city from Dover, on the 28th September?

Ans. No, sir. Nor did Mrs. Wightman come into the city from the time of our going to Dover until the time of our return on the 28th of September.

15th. Did you ever more than this once meet Dr. Morton in the cars, when Mrs. Wightman was with you?

Ans. No, sir.

16th. Did you ever, yourself, when alone, meet Dr. Morton in the cars, on your way *into the city*? What was your hour of coming in?

Ans. I think not. My hour of coming in was usually the first train in the morning.

17th. How did you happen to meet him when you had your family with you?

Ans. Because, bringing in my family, I took a later train than usual.

18th. When you told Mrs. Wightman in the cars that Dr. Morton was experimenting to relieve pain in dental operations—that he tried to conceal it, but you thought you knew what it was; on what did you base your opinion or belief, and to what did you refer?

(This question objected to, as inquiring of the opinion of the witness, and not of a fact, and also of conversations between the witness and his wife. J. P. P.)

Ans. Conversations with Dr. Morton.

19th. With what did you then suppose him to be experimenting?

(This question objected to, as inquiring of a supposition.)

Ans. With sulphuric ether.

20th. Why did you suppose that it was for the alleviation of pain in dental operations that he intended to apply the ether?

(Same objection as to the last.)

Ans. Because, he being a dentist, and conversing upon that subject, I received that impression.

21st. Had you in your said conversations with Dr. Morton before this time told him anything about experiments in taking ether, and the effects?

Ans. I can't fix the date, but I recollect conversations with him on that subject, as to the exhilarating effects of ether, but whether before or after that time I could not say. I told him that the exhilaration of ether, or its substitution for exhilarating gas, was not

uncommon; that when Mrs. Wightman was a school girl, she and her companions used to sprinkle ether on their handkerchiefs, and produce an effect something similar to the exhilarating or nitrous oxide gas.

22d. Whether or not was this said in any connection with the conversation on Mesmerism?

Ans. No, sir, I think not. I don't recollect any connexion between them.

23d. You have said that when Dr. Morton first called on you for chemical glasses, after this conversation in the cars, he told you he wanted them for inhaling ether. Did he then say for what purpose he wished the ether inhaled?

Ans. Yes, sir, to produce insensibility, and my impression is that it had reference only to the extraction of teeth, at that time.

24th. At the time you spoke to Mrs. Wightman in the cars, had Dr. Morton ever told you that he was using ether to produce insensibility, or to relieve pain?

Ans. No, sir. The first information which I derived directly from Dr. Morton, that he was using ether for this purpose, was when he called upon me for the glasses, when he told me that Dr. Jackson had said that he, Dr. Morton, had tried it himself. He was not very open at first. I remarked to him that I had suspected what he was experimenting upon. He asked me what made me suspect it. I replied that I could hardly tell what made me suspect it, that he had taken a good deal of pains to mystify it, but various little circumstances led me to the conclusion that he was using ether for this purpose. I recollect a question put to me at this time by Dr. Morton, whether I smelt ether about him. I told him that I did not, but that I inferred it, or received my impressions, from the manner in which he had asked various questions. This was early in October. I fix the time, early in October, because it was previously to the time of his coming in to procure the apparatus for the experiments at the hospital, which time was some days after this, and occurred about the middle of October. The time which I now speak of was the time when he came for the chemical glass.

Consistent
with his
conduct at
interview
with Dr.
Jackson.

25th. Have you now with you your cash-book? If yea, please produce it, and let the leaf containing the entries of August and September, 1846, be signed by yourself and the magistrate. Has this been done?

Ans. I have the book, and the leaf has been signed by me and the magistrate.

26th. Are you willing to cut this leaf from your book, and have it annexed to this deposition? If yea, please do so. Have you done so, and in whose presence?

Ans. I am willing. I have cut the leaf out, in the presence of the magistrates, A. Jackson, Jr., counsel for Dr. Charles T. Jackson, and R. H. Dana, Jr., counsel of Dr. William T. G. Morton,

and Dr. Morton, and I annex it as part of this, my deposition.

(This leaf is annexed.)

27th. To what does the entry of August 1st, on the sheet from your account-book, refer?

Ans. It refers to the taking of my family to Dover.

28th. What was the fare of one person from Dover to Boston in 1846? Could the entry of September 28th have referred to your own personal expense, without that of your family?

Ans. The fare was fifty cents. The entry could not have referred to my own individual expense without that of my family. I do not recollect of having seen the entry before now since June, 1848. When I answered the twelfth interrogatory, I answered from memory, without being aware of the exact terms of the entry of September 28th.

20th. Have you had any interviews with Dr. Jackson, in which the dates on your book were matter of remark? Please state all the circumstances.

Ans. The first interview which I had with Dr. Jackson was in company with Mr. Joseph Peabody, respecting a communication in the Boston Daily Advertiser of March 5, 1847, and signed "E. W." I do not recollect the particular conversation which took place at that time, but I stated to Dr. Jackson the grounds upon which I had made the statement to Dr. Morton; and in my conversation stated to him that the dates were settled in my mind from their relation with an entry in my books. Dr. Jackson and Mr. Peabody endeavored to convince me that I was in error with regard to the transactions, during which Dr. Jackson became considerably excited, and Mr. Peabody suggested that I should meet him, Mr. Peabody, at his rooms. This conversation was at my rooms in Cornhill. Dr. Jackson then left, and I went with Mr. Peabody to his rooms, in Burnstead Place, [where we went over the whole ground. I remained with him in conversation upon the subject, for, I think, more than an hour; the result of which was that I received no conviction from him that I had made any error in my original statements. Mr. Peabody stated to me, that he could not blame me for any views which I might entertain with regard to the subject, upon the evidence, and that Dr. Jackson had *other means of proving that he was the original discoverer, and requested me, that as I had stated to him and Dr. Jackson that the allusion to me in the communication in the Daily Advertiser of March 5th, was without my knowledge and consent, and I considered it a breach of courtesy on the part of Dr. Morton, I should have no further communication with Dr. Morton upon the subject, and stated to him, that as I had fully stated to him and Dr. Jackson all the circumstances with which I was acquainted in relation to the subject, that I should decline any communication with either party.*] I met Dr. Jackson repeatedly, but without any allusion to the ether controversy. One day,

Dr. Jackson finding his first position untenable takes a second. See below.

sometime afterwards, I was passing Dr. Jackson's office in Somerset street, when I met him at the door, and he invited me in. The subject of ether was soon introduced. I told him that it was not a pleasant subject to me, that I had stated all I knew about the matter in my note to Mr. Bowditch, and avoided the subject. He stated to me in substance that my dates might be correct, but whether they were or not, it made no difference with regard to the originality of his discovery, for that he had evidence to prove that his discovery was as far back as 1842. The subject was then dropped.

(The part in brackets objected to. J. P. P.)

30th. What was the substance of this article in the Advertiser, and who wrote it? What was the breach of courtesy to which you refer?

Ans. The substance of the article was a defence of Dr. Morton's claim to the discovery of ether, and I learned from Dr. Jackson and Mr. Peabody, that it was written by a friend of Dr. Morton's, Mr. Edward Warren. The breach of courtesy was the reference to me by name in the communication, which referred to Dr. Morton, the information given to Dr. Morton, and engaged me in a controversy between parties, without my consent or a knowledge of the use which was to be made of it.

This and the following shew that the witness is no partizan of Dr. Morton, but friendly to Dr. Jackson.

31st. Please look at the History of the Massachusetts General Hospital, by Mr. Bowditch, published in 1851, at pages 245 and 251. Are the letters bearing your name there written by you?

Ans. They are.

32d. At the time the ether controversy began, with which of the parties, Dr. Morton or Dr. Jackson, had you been most intimate? Toward which of these parties, if either, had you the most general sympathies and inclination, irrespective of this question, before that time?

(Objected to as immaterial.)

Ans. I had been the most intimate with Dr. Jackson, and had the most general sympathy and inclination towards him before that time.

33d. Is your memory good, or otherwise, as to power of retention of occurrences taking place under your own observation?

The book, the book — How far so, as you have observed?

Ans. I consider my memory very good and very retentive with regard to circumstances, and particularly with regard to the minutiae of them.

there is no mistake there: p. 256.

34th. State as nearly as you can the dates of these interviews with Dr. Jackson.

Ans. I cannot state anything in regard to those dates, with certainty, except the first one. That was on the 5th of March, the date of the appearance of the article in the Advertiser. The second interview was, I think, but a short time previous to my letter to Mr. Bowditch of February 10, 1848. I desire to cor-

rect my statement made in answer to the 29th interrogatory, in which I refer to my interview with Dr. Jackson, at his house in Somerset street. I said in that answer, that I told Dr. Jackson that I had stated all I knew about the matter in my note to Mr. Bowditch. I wish now to say, that I said to Dr. Jackson that I had avoided conversations upon that subject with every one, that I had not seen Dr. Morton nor any of his friends since the conversation with Mr. Peabody in March, that it was not a pleasant subject, and I had avoided it as far as possible.

35th. Why did you give the letter to Mr. Bowditch, if you had told Dr. Jackson and Mr. Peabody that you intended to have no further communication with either party?

Ans. On the receipt of Mr. Bowditch's note to me desiring information, to which my letter of February 10, 1848, was an answer, I hesitated as to the propriety of my writing upon the subject after what I had given Mr. Peabody to understand. I then considered, that in the recent interview which I had had with Dr. Jackson, nothing which I should state to Mr. Bowditch would vitiate Dr. Jackson's claim to the discovery in 1842. I had also been repeatedly addressed upon the subject by different individuals, and I considered, that as the letter was to be used in a report not drawn up by either party, it would give my statement publicity in a more agreeable manner than any other. That was a strong motive.

36th. When Dr. Jackson told you that he did not care whether your dates were correct or not, as he could substantiate his discovery as far back as 1842, what reply, if any, did you make?

Ans. I said that I was very glad to hear that, as it would relieve my mind of responsibility with regard to statements which I had made in the controversy, which statements had reference only to 1846.

37th. Have you had any interviews with Mr. Lord, who was Dr. Jackson's attorney? State all the circumstances.

Ans. Previously to the publication of Mr. Lord's defence of Dr. Jackson, in June, 1848, a gentleman called at my rooms, and said that he wished to see me about the ether controversy between Dr. Jackson and Dr. Morton. I replied that my business engagements were such that I must decline to enter upon any conversations with regard to the matter. He then left, and I was subsequently informed by some one, whom I don't now recollect, that one of Dr. Jackson's counsel had called upon me, and I had refused to give him any information with regard to the subject. I replied that a gentleman called without introducing himself, and that it was his fault if he did not get the information he wished; for I should certainly have given him, as counsel for Dr. Jackson, any information which I possessed as freely as to any one. A short time afterwards I was waited upon by a gentleman, who stated to me that he was Mr. Lord, and was

Then the claim of discovery in '42 became inevitable. counsel for Dr. Jackson, and he wished to go over the subject of the ether controversy with me. He sat down in my room, and I stated to him all the circumstances with which I was acquainted, and exhibited to him my cash-book, with the entries of September 28, 1846. At this interview, allusion was made to his brother having called on me, and I explained to him the reason of my not having communicated with him at that time.

(This answer is objected to by Mr. Jackson. J. P. P.)

38th. Did you know the gentleman who first called? Did you know the capacity in which he acted?

Ans. I did not know him, or of his being in any way connected with the subject.

Cross Interrogatories by A. Jackson, jr., esq., counsel for Dr. Charles T. Jackson.

1st. Can you state what method Dr. Morton proposed in relation to atmospheric pressure, as referred to by you in answer to 7th interrogatory?

This cross examination will be found to strengthen the testimony in chief, and not to weaken it in any single particular.

Ans. Yes, sir; he came with the idea that I could make a syringe for him, to be connected by a tube with a plate, through which the air might be exhausted between the plate and the gum in dental operations. He supposed that, after exhausting the air, the syringe could be detached, and the orifice closed and the vacuum be retained.

2d. Whether or not he came frequently about this matter of atmospheric pressure? If aye, how frequently?

Ans. I think he came not more than two or three times.

3d. Can you state, from Dr. Morton's conversations with you, which you have referred to in 7th interrogatory, what degree of knowledge about this subject of atmospheric pressure he showed?

Ans. I think he understood the subject of atmospheric pressure, but was entirely mistaken in his ideas of the manner in which it could be produced—I mean produced between the plate and the gums.

4th. What do you know, if anything, of any use by Dr. Morton of any substances—any of the various kinds of ether—for deadening the sensibility of carious teeth?

Ans. I have no knowledge of any conversation with him on that subject. I think the subject was never introduced.

5th. If I understood aright, in answer to 12th interrogatory, you stated that “the conversations in the interviews between you and Dr. Morton in the cars related to dental operations”—was that so?

Ans. Yes, sir; I think they were. During the interval of five or six weeks, while my family was at Dover, I met him, I should think, three or four times certainly, and perhaps five times. The

cars were generally about an hour in going from here to West Needham. There were two or three subjects in reference to dentistry which we spoke of. I suggested to him a method for preventing the shrinkage of the moulds affecting the plate. This matter of the syringe came up several times.

6th. When Dr. Morton came to your rooms, as you have said, in answer to 7th interrogatory, did he purchase a bag of you? If not, did he give any reason for not purchasing any?

Ans. He did not purchase a bag of me. I don't think he gave any reason for not so doing. I supposed, from the reason that I gave him at the time, that the ether would soften the rubber and act upon the oil-silk, that he did not think that he wanted it. My impression is, that I advised him not to try it without further information.

7th. What kind of gas-bags did Dr. Morton examine?

Ans. Those made of India-rubber cloth, which we usually have for the chemists to retain gasses.

8th. Were these gas-bags of different sizes?

Ans. Yes, sir.

9th. Were not yours, or some of yours, large bags?

Ans. They would hardly pass for large bags; they ranged from one to three gallons.

10th. Do you know, or did you at that time know, of any other persons than yourself and Mr. Chamberlain that had any India-rubber cloth bags for sale?

Ans. No, sir. The India-rubber companies have bags of a similar kind, of various sizes, but they are not fitted with a connexion to attach stop-cocks, as used by chemists in experiments.

11th. Do you know certainly the time of Dr. Morton's presence in your rooms, when the conversation detailed in answer to 7th interrogatory was had concerning India rubber bags?

Ans. No, sir; I do not know the time certainly. It was certainly previously to the return of my family from Dover.

12th. You have stated that you furnished Dr. Morton with some articles of glass apparatus—was any conversation then had about India-rubber bags?

Ans. No, sir. All the conversations in reference to glass apparatus were in October.

13th. Did Dr. Morton get any glass apparatus for the purpose of inhaling ether from you before the time you have spoken of as early in October, 1846?

Ans. No, sir.

14th. How long an interval was there between the time when he came for information about atmospheric pressure, and the time when he came for an apparatus by means of which ether should be administered in the hospital?

Ans. As near as I can recollect; several weeks certainly.

15th. In your answers to 7th and 8th interrogatories, have you

fully stated all the conversation you had at the times there referred to with Dr. Morton?

Ans. No, sir.

16th. Whether or not your first answer (an answer not written) to 10th interrogatory, before any explanation by Mr. Dana or Mr. Putnam of the meaning of 10th interrogatory, was "no, sir"—"my inquiry of him was a casual remark?"

Ans. I don't recollect distinctly about it, whether I made use of those precise words or not. I certainly did not intend them to be the answer to the question. The answer as now written is correct, and I don't wish to vary it.

17th. Was the conversation at the interview you have spoken of, as asked of you by Dr. Morton in the office of the Pavilion, in reference to payment by him of his bill, or to induce you to render him some service? Can you tell the time of this interview?

Ans. I did not understand it as asking of me any service. I have no means of fixing the time or date of this interview, but it was some considerable time previous to March 5, 1847, because the conversation with Dr. Morton had passed from my mind, until it was brought up by Dr. Jackson's and Mr. Peabody's visit, with the article in the Daily Advertiser.

18th. Did Dr. Morton propose to pay your charges?

Ans. Yes, sir. He said he wished to have the bill, so that he could settle up all those matters.

19th. What else, if anything, did he say about dates of charges?

Ans. As near as I can recollect, he said, when I told him that I did not recollect of making any entries, that Dr. Jackson and himself had disagreed upon some matters in relation to the discovery, and that Dr. Jackson claimed the whole as his own, and he wished to show by dates of transactions, if possible, that it was not so. That is in substance what he said.

20th. Please state the manner in which your books were kept as to accuracy? Will you give some descriptions of your books?


Ans. I kept this book myself, and no entries of cash were made except by myself in the book. I consider it accurate. This is the only cash book which I have. One part of this book was used for orders and transient accounts, and another part as a record of my cash transactions, and this entry of September 28th was made in this latter part. This book includes all the cash transactions from January, 1844, to December, 1848.

No one has been bold enough to charge Mr. Wightman with false entries or perjury.


21st. Were your books in your rooms so kept as to preclude error as to dates?

Ans. Yes, sir. They were always kept in my own possession, and no one else has access to them.


22d. Do or not your books show that you sometimes, or often, omitted dates of charges, and put down names of charges simply?

Ans. Whenever a date is omitted, it is intended to refer to the next preceding date. I considered it unnecessary to repeat the date. 

23d. Is it not a matter of frequent occurrence with people in your business, as in a laboratory book for instance, to simply put down names and charges, and leave the dates unfilled?

Ans. I don't know what the practice is of others; it is not mine. Before I make an entry of an order or any entry, I always first fix the date of it. This is necessary in my business; for I should not otherwise know when an order came in, or when to take it up. 


24th. Whether or not your answer to 29th interrogatory was given after you looked at your letter of February 10, 1848, and made with the History of the Massachusetts Hospital by Mr. Bowditch, opened at the place where the letter is published? And whether or not your statements as to dates have or not been based here to-day on reading your letters in said Massachusetts Hospital History?

Ans. I inquired as to the date of the article in the Daily Advertiser, and Mr. Dana handed me the History of the Massachusetts Hospital Society for the purpose of fixing that date, and that date was all I fixed by an examination of it. I have kept aloof from any information derived from other sources, supposing that it was my duty in my examination here to make up my mind without reference to them. The only information I have derived from reading my letters or that History, are as to the date of the letter in the Daily Advertiser, and the date of my interview with Dr. Jackson at his house in Somerset street, in connexion with the date of my letter to Mr. Bowditch. 

25th. In what book is that story found about the experiment of the surgeons in bleeding a criminal to death by the power of his imagination?

Ans. I don't know, sir; nor can I say where I read it, nor do I know that it is strictly correct, or that I repeated it to Dr. Morton correctly.

26th. You have spoken of three interviews in your rooms between yourself and Dr. Morton: one when he came about atmospheric pressure; a second when he came for articles of glass apparatus; and a third when you made apparatus by which ether was to be administered at the hospital. Can you now, in giving your account of what Dr. Morton said, and of your thoughts about what was to be used, and of your own impressions, so distinctly separate them as to say what belongs to the first time, what to the second, and what to the third?

Ans. Yes, sir; what I have stated is as clear on my mind as though it was quite recent. 

27th. You have spoken, in answer to 18th interrogatory, of conversations with Dr. Morton, from which you formed a certain opin-

ion. Have you, in answer to Mr. Dana's questions, given all these conversations, or the substance of them, from which you formed your opinion?

Ans. Not so fully as I could. I recollect now, since this question was put, the way in which the conversation about mesmerism came up. I inquired of Dr. Morton whether he had extracted teeth from persons who were mesmerized. I do not recollect what his answer was, but I told him I understood that they were extracted without pain to the patient. My opinion is that he did not approve of it, but asked my opinion in reference to the subject of mesmerism. This is all I recollect now, in connection with what I have already stated, though circumstances might bring up something more.

28th. You spoke of attempts to extract teeth while the patients were under the influence of mesmerism—whether, or not, the public attention was, in the winter, and spring, and summer before October, 1846, very much given to the subject of mesmerism? whether, or not, there had been very many public lectures on this subject? and whether, or not, this subject was one of general, frequent, and common conversation at that time?

Ans. I think so.

29th. Whether, or not, you are perfectly clear in your present recollection of matters, and interviews, and conversations by you detailed, as to the time when they took place, or whether you have any difficulty of recollection as to the order or priority of matters?

Ans. I have no doubt as to any essential points which I have stated; so many circumstances have occurred from the outset of this matter until the present time, that I have a perfectly distinct recollection of everything, except, perhaps, so far as dates are concerned. It is different from what it would be were the subject now first brought to mind, after the lapse of so much time.

30th. In your answer to 4th interrogatory, you state that you have been associated with Dr. C. T. Jackson, by lecturing before the same association with him; how did you mean—by aiding him, or joining with him in experimental scientific lectures?

Ans. I mean that I have lectured before the same associations, and on one or two occasions lectured in his place, when he could not, for some reason, fulfil his engagements.

31st. By what you state in answer to 4th interrogatory, "we belong to the Warren Club together," &c., did you mean "we both belong to the Warren Club," or how otherwise?

Ans. I meant that we were both members of the Warren Club.

32d. Did Dr. Morton ever, before early in October, (when, as you have stated in answer to 24th interrogatory, he called for glass,) call on you to procure, or contrive an apparatus for the inhalation of ether.

Ans. Not previously to that time; at the time he came for the glasses a conversation ensued as to the best form of a vessel for the purpose of inhaling ether; his object at that time was to obtain glasses already made, if possible, rather than to have something made especially for the purpose.

33d. Whether, or not, early in your examination, you stated that you were "troubled a little in respect to the priority of matters?"

Ans. I don't recollect it.

34th. There was something said by you early in this deposition about the reaction of subsequent events on your mind. Can you recall that, and state what was meant by it?

Ans. I cannot recall it.

35th. Do you remember *the day of the week* when your family moved in from Dover, in 1846?

Ans. On Monday.

36th. Please look at the third paragraph in your letter before referred to in this deposition, beginning, "A few days after this interview Dr. Morton came to me for some chemical glasses," &c. Was this the interview before by you referred to in your answers to 12th and 24th interrogatories, as occurring early in October?

Ans. Dr. Morton came several times in relation to chemical glasses—I should say three or four times—and without letting me know at first what his object was. The interview referred to in that paragraph refers to several interviews on this subject of glasses. I recollect his taking various shaped glasses and returning them several times in one forenoon, and in the course of a day or two the glasses were repeatedly changed, so much so that I thought it useless to make any specific entry of any article which he took. It was not until after he had tried and returned a number of these glasses that I learned directly from him the object which he was procuring them for. Wherever the interviews which I have stated refer to chemical glasses, they are the same as those referred to in that paragraph of my letter.

37th. In answer to 7th interrogatory, you have said that in an interview with you, Dr. Morton asked if India-rubber bags would hold ether, and if oil-silk bags could be used. In answer to 9th interrogatory, you say the words of his answer to your inquiry "if it was sulphuric ether," were, "I mean the common ether;" you have stated your opinion, or belief, or supposition of the purpose for which he intended to apply the ether. My inquiry is, if from what is here in this interrogatory stated, and what you have stated in answer to 27th cross-interrogatory, you formed such opinion, belief, or supposition?

Ans. The conversation in relation to the subject was more extended in relation to the effects of mesmerism and ether at that time than I have indicated in my previous answers; not only the

subject of mesmerism and that of exhilarating gas, but also the effects of inhalation of ether was spoken of. I now recollect of speaking to Dr. Morton about the effects of breathing ether from a handkerchief, as referred to in my answer to 21st interrogatory, at the time of the conversation with him about the India-rubber bags; I think it was also at this interview that the impression was made upon my mind that Dr. Morton was seeking for some method to draw teeth without pain.

38th. Do you feel confident that you can safely rely on the fidelity and accuracy of your memory in relation to what you may have seen some years ago?

Ans. Yes, sir.

39th. There seem to be two classes of mind: one very positive, certain, confident; a second distrustful, doubting, diffident. To which does your disposition and mind incline?

Ans. Doubtful and diffident until I am certain, and then I am obstinate and persisting.

40th. Is your recollection of a past occurrence (as an experiment, for instance, in which you took an active part) so reliable that, if your view was decidedly controverted, you would still hold to and maintain and stand by your view and opinion?

Ans. No, sir.

41st. Have you or not been sometimes very positive that a fact was of a particular kind, and, on further investigation, have you not found that your original recollection, view, and, as you supposed, knowledge of the fact, was entirely erroneous?

Ans. I have no recollection of any such instance.

42d. Have you in any instance, since the year 1846, relying on your memory, made a positive statement as to what you had previously seen or heard, and subsequently found that your memory had proved false, and that that statement was directly contrary to what you had seen or heard?

Ans. I have no knowledge of any such instance.

43d. Do you remember assisting a gentleman of this city in some philosophical experiments as to lateral jets of water, some years ago?

This attempt to discredit is simply ridiculous.

Ans. Yes, sir.

44th. Whether or not, after so assisting this gentleman, some years after, you conversed with him on that subject of jets of water?

Ans. Yes, sir.

45th. Whether or not you stated your recollection of the experiment as a certain one, and he stated it to have been directly the reverse of your statement?

Ans. I alluded to the result of an experiment, and he stated that it was not so. There was no question of fact in regard to the matter, but it was a mere accidental remark.

46th. Whether after this, on the spot, you tried the experiment, and it turned out that he was right?

Ans. Yes, sir.

47th. In this instance, after the gentleman in question had stated the result to be just the reverse of your recollection of it, whether or not you continued to maintain with great confidence and positiveness that you were right and he wrong, though he stated that he recorded the result of the experiment?

Ans. No, sir. The whole experiment referred to was one of a series in which I aided Mr. Joseph Hale Abbott, of Boston, in regard to the pneumatic paradox and the passage of fluid through pipes. It was some years ago. The experiments were tried at his house, on an election day. A cistern of wood was prepared, and some lead pipes attached, and in an experiment upon the lateral pressure of the water upon the pipe, holes were made in different parts of the lead pipes for the purpose of observing the lateral pressure. That experiment referred to whether the hole was made in a thick or thin pipe. My impression was, that when the hole was made through the sides of the thick lead pipe, that the water did not issue from this hole until the thickness of the pipe had been cut away upon the outside, so as to destroy the tubular nature of the hole. Sometime afterward I made an incidental remark with regard to this experiment to Mr. Abbott, at my rooms, alluding to the singular result of cutting away a portion of the tube. Mr. Abbott stated to me that I was mistaken as to the effect, and I took a piece of lead pipe, attached it to the water pipe in the work-shop, repeated the experiment, and found that Mr. Abbott was correct, which was pleasantly admitted on my part, and I am not aware of any recurrence of the matter having taken place since between Mr. Abbott and myself.

48th. Whether or not, at the interview in your room referred to in 45th interrogatory, the gentleman in question said *there was a lateral jet*, and you said *there was not*, in the pipe leading from the cistern? And this was the question in discussion?

Ans. Yes.

49th. Had you been positive in your own opinion before you attached the lead pipe to the water pipe in your room?

Ans. I felt sure that it was correct, from its analogy to other experiments made in hydraulics.

50th. In your letter of February 10, 1848, it is stated that "a few days after this interview, Dr. Morton came to me for some chemical glasses"—"in the course of the conversation I had no question in my mind but they were for experiments in ether." In the letter of June 15, is as follows: "A dentist making experiments about extracting teeth without pain"—"I have not the least doubt in my mind that the agent he intended to use was sulphuric ether." My inquiry is, if you formed the

opinion of his extracting teeth without pain from the conversation above referred to in the first letter, where chemical glasses are mentioned?

Ans. No, sir.

51st. Whether or not events subsequently occurring, after the ether discovery was published in the papers in Boston, may naturally have had some effect on your mind as you recall incidents which you state as occurring before?

Ans. No, sir; because there has been no reference in any paper, that I am aware of, to the incidents which took place at these interviews.

52d. Was the interview before referred to, when Dr. Morton came for chemical glasses, the interview answered about by you in answer to 12th interrogatory, beginning, "Shortly after my return from Dover, in October, Dr. Morton procured of me several articles of glass apparatus?"

Ans. Yes, sir.

53d. You stated, in answer to the 35th interrogatory, that you considered that your letter was to be used in a report not drawn up by either Dr. Jackson or Dr. Morton; whether or not you knew that Mr. Bowditch was the zealous advocate of Dr. Morton?

Ans. No, sir. Mr. Bowditch stated to me that it was to be added to a statement in reference to the ether discovery, which was coming out in a report of the Massachusetts General Hospital.

54th. Before you wrote the letter of February 10, 1848, by you before referred to in answer to 35th interrogatory, had you verbally communicated to Mr. Bowditch the matters set forth in that letter?

Ans. Some parts of it, but not entirely.

55th. Whether or not Mr. Bowditch came to see you, or saw you several or many times respecting your letter to him of February 10, 1848—whether he was urgent with you to write such a letter?

Ans. He came once, and I communicated to him the information which is embodied in the letter. He then addressed a note to me, I think the next day, asking me to write him what I had stated to him verbally; that was all the urgency. I wrote my letter, and that is the last I saw of Mr. Bowditch.

56th. Whether or not you were aware, before your letter of February 10, 1848, and if not then so aware, were you before the letter of June 15, 1848, that Mr. Bowditch was the advocate of Dr. Morton?

Ans. I had read the Hospital report before June 15, and my ideas of Mr. Bowditch's position were, that as he believed in the original discovery of Dr. Morton, that he felt it due to justice to sustain it. How that would vie, being an advocate, I cannot say I regard an advocate as being a counsel.

57th. Please look at the last paragraph in your letter of June 15, 1848, before referred to. How happened this to be there written? was it at the suggestion of any one?

Ans. It was what I related to Mr. Bowditch before I wrote it. It was a suggestion of my own mind.

58th. When you refer in your mind to the interview at the Pavilion, will you state whether Dr. Morton sought that—called you aside, or was it a chance meeting?

Ans. It was an accidental meeting. I was going to my place of business, and met him accidentally on the sidewalk. The interview did not exceed ten or fifteen minutes.

59th. Whether or not he called you aside into the hotel?

Ans. He suggested our stepping in; we were right in front of the door, and we stepped inside, as it was out of the street.

60th. How long after you heard anything of this ether discovery, did you know or hear of Dr. Jackson as the discoverer, and of the assertion by him of this fact?

Ans. The first I heard of Dr. Jackson's claiming the discovery as original with him, as well as I can recollect, was either upon the appearance of his letter to the French Academy, which I read, or the interview with him and Mr. Peabody, with the exception of what I heard from Dr. Morton at the interview at the Pavilion.

61st. Is your memory clear that Mrs. Wightman and yourself came into Boston in the fall of 1846, and that Dr. Morton was in the cars, and that he offered a boquet to you?

Ans. Yes, sir.

62d. Whether or not your memory as to the time is here aided by the facts that it was the only occasion when Mrs. Wightman came into Boston that fall in the cars, and that the train was a later one than you usually came in by; and whether or not your memory as to Dr. Morton's presence, and as to the place, is aided by the incident of the flowers?

Ans. My memory is aided by all those facts, and my attention was called to them soon after by the interview between Dr. Morton and myself at the Pavilion.

63d. Do you remember whether you introduced Dr. Morton to your wife, or told her who he was?

Ans. I introduced him to her.

64th. Whether or not the newspapers during the fall of 1846, and the winter following, very frequently had long articles concerning the ether discovery?

Ans. I don't recollect of any long articles; I only recollect simply a paragraph in the Transcript in reference to it.

65th. You have stated in your answer to 12th interrogatory, that, though busy, you yielded to Dr. Morton's urgency, and prepared apparatus which he said Dr. Warren was to administer ether with, the next day at the hospital; whether or not you were a good deal

interested, as a scientific person, in the new discovery of inhaling ether to prevent pain; whether or not you read the various articles published in the newspapers on that subject, and conversed with different persons about this?

Ans. I regarded the discovery as a very important one, and felt very much interested in it; I read the paragraph in the Transcript and Dr. Jackson's letter to the French Academy, and possibly, though I don't recollect it, the letter in the Advertiser of March 5, but they did not have any influence upon my mind. At the interview with Dr. Jackson and Mr. Peabody, reference was only made to that part of the letter in the Advertiser in which I was referred to. I have undoubtedly conversed with different persons about this subject.

66th. Whether or not after, and as the various articles were published in the Transcript or other papers in the fall of 1846 and winter following, you spoke with Mrs. Wightman about this new discovery?

Ans. Yes, sir. I think so.

67th. Whether you remember to have said to her that "this is the Dr. Morton we met in the cars," or something to this effect?

Ans. I might have used those words, or I might not. The general subject was talked over with her a number of times. Mrs. Wightman suffered very much from dental operations, and was anticipating at that time that she would have to have one performed, which made it a subject of great interest to her.

68th. Whether or not many persons called on you in behalf of Dr. Morton, in the fall of 1846 and in the spring of 1847. If yea, who?

Ans. No one.

69th. Do you recollect that Edward Warren called; Dr. H. J. Bigelow, N. J. Bowditch, Esq.; or did they call at a later time?

Ans. The first time I saw Mr. Warren was a considerable time after the publication of March 5. I recollect no call from Dr. Bigelow in reference to the ether question; I met him at the Club and talked it over with him. Mr. Bowditch first called upon me when he called in reference to my letter of February 10; he introduced himself to me, and stated that he wished to procure all the information he could in reference to the ether discovery, for the purpose stated.

70th. In your answer to 24th interrogatory, you speak of a time early in October that Dr. Morton came to your rooms; that at first he was not very open. Will you please state whether or not the matter which was to be inhaled by means of the glass articles was spoken of by him as a compound or gas?

Ans. I cannot say how ambiguous he was at first; if he alluded to any compound, it was a compound with sulphuric ether.

71st. Had you then early in October read the account, or known of the experiment of extracting a tooth in Frost's case? Whether

or not you then believed the matter breathed to be sulphuric ether, or that this was one of the elements of a compound?

Ans. I don't recollect anything about Frost's case; the subject is new to me entirely.

72d. Whether or not you at this time well understood that the object was to breathe gas to prevent pain, and that the mystification spoken of by you was about a "compound" or "gas."

Ans. No, sir; I did not understand that it was a gas.

73d. In answer to 29th interrogatory you go on to say that Dr. Jackson invited you into his laboratory, and had a conversation with you about ether. In this conversation you fix the place (Dr. Jackson's laboratory.) In answer to 35th interrogatory, you state this conversation differently. My inquiry is, when this conversation spoken of as had in the laboratory was held?

Ans. The conversation took place in the front room of Dr. Jackson's office, in Somerset street; I mean that when I speak of his laboratory.

74th. Whether or not you said to Dr. C. T. Jackson when he stated, if you remember his statement, that it had been shown that Dr. Morton came to his laboratory on the 2d or 3d of October, 1846, with a glass tube with a bulb in the middle of it, and an India-rubber *bottle*, that you were not ashamed to acknowledge you were in error as to the date, or something to that effect?

Ans. No, sir; I never acknowledged any such thing, under any circumstances; I made no such admission. Dr. Jackson may have said it himself, as he sometimes has done, and then supposed that I said it to him. The whole burden of the conversation at that time was, that Dr. Jackson considered his claim settled, aside from anything I might say.

75th. Did you not so say, or to such effects, in the telegraph office of Mr. Bain, in the Merchants' Row, after the opening of the office?

Ans. No, sir.

Direct resumed by Mr. Dana.

1st. Do you recollect whether or not Dr. Morton took from your place a glass tube at the time he inquired about the gas-bag? Might it not have been so?

Ans. He took a variety of articles, and he might have taken a glass tube.

2d. Please refer to your answer to the 36th cross interrogatory. Did he or not take some chemical glasses from you before the 28th of September?

Ans. He may, possibly, but I don't recollect particularly with

regard to that. The gas-bags were in the same room with the glasses.

3d. Were there not places besides yours and Mr. Chamberlain's at which India-rubber bottles or bags could be bought and filled with tubes or otherwise, so as to hold ether?

Ans. The small rubber bottles, sometimes called bags, are kept at the apothecaries, which might be used for that purpose; they are used for attaching to pipettes or glass tubes, for the purpose of drawing liquids into them, instead of doing so with the mouth. My answer to the tenth cross interrogatory had reference to gas-bags only.

Cross-interrogatory resumed by Mr. Jackson.

1st. Whether or not, throughout your deposition, you have always stated that the time when Dr. Morton got the glasses was in October, or early in October?

Ans. Yes, sir; that is my impression.

JOSEPH M. WIGHTMAN.

The following is the leaf referred to in my answers to the 12th, 13th and 25th direct interrogatories:

1846.

| | | |
|------|--|--------|
| Aug. | 1. J. H. Abbott's bill----- | \$1 00 |
| | 3. W. S. Preble, Baltimore, for coils and bells ----- | 10 00 |
| | 3. Microscope, \$2 25, W. H. Channing's bill | 3 42 |
| | 3. Test tubes, \$1, Prince Albert, \$5----- | 6 00 |
| | 5. S. Pickard for apps. to Illinois----- | 135 00 |
| | 6. Professor A. Jackson in full----- | 34 00 |
| | 11. Dr. A. Page, for apps.----- | 50 00 |
| | Apparatus, \$2 40, apps., \$7----- | 9 40 |
| | 13. Bath, Me., high school----- | 200 00 |
| | 13. Rev. R. Stewart Greenville----- | 105 00 |
| | 18. Medical apparatus, \$15, from Dockham \$2 | 17 00 |
| | Professor C. Mitchell & Phillips----- | 137 83 |
| | A. A. Young, for slides, (\$109 50)----- | 100 00 |
| | 24. Professor Cleaveland's bill----- | 42 13 |
| | J. Wittington, for apps.----- | 11 75 |
| | J. R. Rollins, balance----- | 2 50 |
| | Dockham, balance ----- | 40 00 |
| | Electric plate, A. Page----- | 5 00 |
| | J. Kingsbury's bill----- | 6 50 |
| | 29. E. Tuttle, Utica bill----- | 92 75 |
| | Glass received, Porter's express----- | 3 50 |

| | | |
|-------|--|---------|
| Aug | 31. Professor L. R. Gibbes, in full, &c----- | 46 90 |
| | 81. Diagonal pivot machine----- | 5 00 |
| | | <hr/> |
| | | 1064 73 |
| | | <hr/> |
| Aug. | 1. Railroad fare to Dover----- | \$2 50 |
| | 1. J. A. R., \$9 27; Aug., \$7 75; H. B., \$6 50 | 23 52 |
| | 4. Bookbinding, \$27 57; papers, \$3 75---- | 31 32 |
| | 4. Rubber, \$1; handles, 50 cents----- | 1 50 |
| | 4. Punches, 75 cents; silk, 25----- | 1 00 |
| | 4. Charcoal, \$2; freight, 50 cents----- | 2 50 |
| | 10. Bells, \$2; cocks, \$1; kettles, 88 cents-- | 3 88 |
| | 10. Iron castings----- | 2 13 |
| | 10. Calipers, \$1; mahogany, \$10 29----- | 11 29 |
| | 10. A. Murdock, \$20; J. A. R., \$3 28----- | 23 28 |
| | 10. H. B., \$6 83; Aug., \$7 33----- | 14 16 |
| | 12. Microscope, \$4; A. M., balance, \$6 46--- | 10 46 |
| | 13. David, on account----- | 5 00 |
| | 13. K. L. Blake, \$8 40; D. C. Murdock, 50 | |
| | cents----- | 58 40 |
| | 13. Paint for E. M. Z., \$1 12; paper, 25 cents | 1 37 |
| | 13. Hooper & Co., in full to July----- | 118 92 |
| | 15. Freight 38 cents; tacks, &c., 50 cents--- | 88 |
| | 15. Pyrometer plates, \$1 50; oil, 25 cents--- | 1 75 |
| | 15. J. A. R., \$9 25; Aug., \$6 65; H. B., | |
| | \$6 16----- | 21 96 |
| | 15. Rent, Mothan, \$6; boxes, E. H. L., \$6-- | 12 00 |
| | 18. Disc't., 50 cents; nails, 25 cents; sand paper | |
| | 25 cents----- | 1 00 |
| | 18. Staging, \$1; house, \$1 50; Bertha, \$3-- | 5 50 |
| | 22. J. A. R., \$8 72; Aug., \$7 64; H. B., | |
| | 6 85----- | 23 21 |
| | Fisher's bill----- | 9 00 |
| | House, &c., \$3; collecting, 75 cents----- | 3 75 |
| | 29. J. A. R., \$9 83; Aug., \$7 42; H. B., | |
| | \$6 85----- | 24 10 |
| | Varnish and Japan, E. H. L----- | 4 00 |
| | Discount on bills, and wicks----- | 25 |
| | 31. Silk for elec'd., \$5; house \$1 50----- | 6 50 |
| | | <hr/> |
| | | 425 13 |
| | | <hr/> |
| Sept. | 1. For retort----- | \$0 38 |
| | 1. Apparatus----- | 6 36 |
| | 2. Chamberlain's bill----- | 40 92 |
| | 3. Mineral frame----- | 1 25 |
| | 4. B. Pike, and pyric fires----- | 15 00 |
| | 4. Henshaw & Co., for slides----- | 43 00 |

| | | |
|-------|--|--------|
| Sept. | 4. Maynard & Noyes----- | \$1 00 |
| | 4. J. Child, for apparatus----- | 10 25 |
| | 4. J. G. Kidder, for apparatus----- | 27 04 |
| | 5. H. Pickard, Sackville, N. Y----- | 24 15 |
| | 5. Eye model----- | 6 00 |
| | 11. Blowpipe----- | 2 00 |
| | 14. D. J. Griscom's bill----- | 146 13 |
| | 16. J. B. Dodd's bill, less jar----- | 4 50 |
| | 17. H. P. Andrews, for globe, &c----- | 28 87 |
| | 18. J. M. Martin, for apparatus----- | 23 25 |
| | 23. Cotton for balance----- | 3 37 |
| | 26. Dr. Wyman, for apparatus----- | 20 18 |
| | 26. Dr. Sweetham, for apparatus----- | 17 25 |
| | 26. Apparatus, \$3; apparatus, 38 cents----- | 3 38 |
| | 28. J. E. Dawson, and interest----- | 97 75 |

522 03

| | | |
|-------|--|---------|
| Sept. | 2. A. Peterson, on account----- | \$60 00 |
| | 2. D. Roland, on account----- | 10 00 |
| | 2. Transcript to July 1----- | 2 00 |
| | 2. Freight, &c., \$1 50; freight, 38 cents---- | 1 88 |
| | 2. Bits, 33; oil wicks, &c., \$1 50----- | 1 83 |
| | 2. Crucibles, 75 cents; sieves, 88 cents----- | 1 63 |
| | 5. N. C. & Co., on account----- | 100 00 |
| | 5. A. Murdock, in full----- | 32 30 |
| | 7. House, \$3 50; lead pipe, \$18 53----- | 22 03 |
| | 7. J. A. R., \$7 80; Aug. \$7 45; H. B., \$7-- | 22 25 |
| | 7. D. Davis, jr., on account----- | 100 00 |
| | 10. Daniel Messer, in full----- | 22 75 |
| | 12. House, \$3; staging, \$1----- | 4 00 |
| | 12. J. A. R., \$8 25; Aug. \$6 05; H. B., \$7. | 21 25 |
| | 12. Steel rods, \$1 25; for sliding----- | 1 00 |
| | 12. Worcester's Dictionary----- | 3 00 |
| | 18. City and county tax----- | 37 50 |
| | 18. H. B. in full, to date----- | 5 43 |
| | 22. Postages in full----- | 6 47 |
| | 28. Board bill at Dover----- | 57 00 |
| | 28. Staging from Dover, &c----- | 4 00 |
| | 28. J. A. R., in full, 2 weeks, \$17 31; Aug. | |
| | 2 weeks, \$11 30----- | 31 61 |
| | 28. Messer's bill, July 1----- | 11 00 |
| | 29. Sawing wood at house----- | 2 00 |
| | 30. Cranberries, &c----- | 5 12 |

566 05

The date
of his con-
versation in
the cars
with Dr.
Morton.

J. P. PUTNAM.

COMMONWEALTH OF MASSACHUSETTS, } ss.
Suffolk County,

We certify that the foregoing is a true copy of the deposition in *perpetuam* of Joseph M. Wightman, taken before us upon the petition of William T. G. Morton, under the statutes of this commonwealth.

GEO. T. CURTIS,
 J. P. PUTNAM,

Justices of the Peace and Counsellors at Law.

Boston, December 16, 1852.

Boston, May 3, 1845.

Dr. Morton,

Bought of Benj. B. Mussey,

| | | |
|-------------------------------|--------|---|
| 1 Hooper's Dictionary----- | \$3 00 | |
| 1 Duitt's Surgery----- | 3 00 | |
| 1 Carpenter's Physiology----- | 3 25 | |
| 1 Churchill's Mid.----- | 3 25 | |
| 1 Wilson's Anat.----- | 3 25 | |
| 1 Watson's Pract.----- | 3 00 | |
| | 18 75 | |
| 1 Pereira's Mat. Med.----- | 6 50 | This is the book which contained the pre- |
| | 25 25 | scription of |
| 1 Webster's Chem.----- | 2 50 | ether as a |
| | 27 50 | remedy for |
| | | accidental |
| | | inhalation |
| | | of chlorine |
| | | gas, viz: |
| | | the same |
| | | thing which |
| | | Dr. Jack- |
| | | son claims |
| | | to have dis- |
| | | covered in |
| | | 1842, three |
| | | years after |
| | | the publica- |
| | | tion of this |
| | | book. The |
| | | bill shows it |
| | | purchased |
| | | by Morton |
| | | in 1845—16 |
| | | months be- |
| | | fore the in- |
| | | terview |
| | | with Jack- |
| | | son. |

Received payment, &c.,

B. B. MUSSEY,
 By, &c., &c.

Boston, September 30, 1846.

This is to certify that I applied to Dr. Morton, at 9 o'clock this evening, suffering under the most violent toothache; that Dr. Morton took out his pocket-handkerchief, saturated it with a preparation of his, from which I breathed about half a minute, and then was lost in sleep. In an instant more I awoke, and saw my tooth lying upon the floor. I did not experience the slightest pain whatever. I remained twenty minutes in his office afterwards, and felt no unpleasant effects from the operation.

EBEN H. FROST, 42 Prince Street, Boston.

We witnessed the above operation, and the statement is, in all respects, correct—and, what is more, the man asked where his tooth was, or if it was out.

A. G. TENNY, Journal Office.

G. G. HAYDEN, Surgeon Dentist.

TESTIMONY:—*Fully confirming Hayden, R. H. Eddy, C. Eddy, Gould, &c., that Jackson took no responsibility, and only claimed to have made a suggestion.*

Dr. Jackson's agency and connection with the discovery stated by himself to have been composed in the following remark to Morton, viz:

"WHY DON'T YOU TRY ETHER?"
"Thus it has been held that in order to invalidate a patent on the ground that the patentee received from another the suggestion of the invention, it is not enough to show that the naked idea or bare possibility of accomplishing the object was suggested." Curtis on Patents, § 48.

I, Peleg W. Chandler, of Boston, in the county of Suffolk, and Commonwealth of Massachusetts, counsellor at law, being first duly sworn, depose and say, in answer to interrogatories by R. H. Dana, jr., esq., counsel for Dr. William T. G. Morton:

1st. Are you, and how long have you been, of the Boston bar? What public office do you hold? What have you held within the last ten years? At what college did you graduate?

Ans. I am a member of the Boston bar, and have been since 1837. I am city solicitor of the city of Boston. In 1844-'5-'6 I was a member of the Massachusetts legislature, for the city of Boston; in 1843, for three years, I was a member of the city council, and president of it for two years; I was commissioner in bankruptcy under the late bankrupt law of the United States, while that was in force. I graduated at Bowdoin College, in Maine.

2d. When did you first hear of the ether discovery? Please state the circumstances.

Ans. The first time I ever heard of the application of ether to surgical operations was from the lips of Dr. Charles T. Jackson. It was at the Warren Club, I think, an association of gentlemen where scientific matters were frequently discussed. I had heard mention made of some new discovery, around the room, which seemed to make considerable impression, and I, or some one near me, asked Dr. Jackson, who was present, what it was. He then stated to me and, I think, one other gentleman—we were standing by ourselves—that some time previously Dr. Morton, a dentist of this city, came to him to borrow a gas-bag, and stated that he had an idea of filling it with atmospheric air, in order to work upon the imaginations of nervous patients, and induce them to submit to dental operations more readily; that Morton mentioned some experiment in France, upon a soldier who had been con-

demned to death, who had been induced to believe that his blood was running, which had such an effect upon his imagination as to have killed him actually; that he (Jackson) told him that that was a very pretty story, but there was no truth in it—and then asked Morton why he did not try ether; that, sometime after this, Morton came to him (Jackson) in a state of great excitement, half crazy I think was his expression, and said that he had found it, or had hit upon it, or words of that import—I am not positive as to the exact expression. Dr. Jackson then said that it appeared, from Morton's statement, that he had shut himself into a room and inhaled ether from a handkerchief, and found, by examining his watch before and after, that he had been insensible for some minutes, or had lost a few minutes. Dr. Jackson said that he subsequently told Dr. Morton that he should charge him five hundred dollars; that he finally compromised it with Morton, by agreeing to take ten per cent. on something, I think on patent rights for this matter; and I think the Doctor added, with a smile, that he thought he should do better, or make more out of it, than if he had taken the five hundred. There was more conversation, but I do not remember the exact language; but I can state very decidedly what the impression was which was made on my own mind at the time, and that was, that Dr. Jackson regarded this affair not as a settled thing, or not as a discovery that was to be anything remarkable in itself, or one that was likely to be applied beneficially, in itself considered, but as rather opening the door to future investigation in that direction, that something might hereafter be discovered that would stand the test of science and practical experience. There was an obvious desire not to connect himself, as a man of science, with it to any great extent, and he made use of some expression of this sort with regard to Dr. Morton, that he was a reckless, dare-devil fellow, and that he would kill somebody yet. I think that was his very expression. This was the substance of the conversation. I merely asked to see what the subject was, as there was a sort of buzz about the room in reference to something that had come up.

3d. Did Dr. Jackson say that he had told Dr. Morton, or predicted to him, what the effect of the ether would be?

Ans. No; I think all that was said about ether by Dr. Jackson, was, why don't you try ether? I am very confident. I don't mean to say that I understood Dr. Jackson as detailing all he had said to Dr. Morton.

4th. From anything which Dr. Jackson said, did you get the impression that he had discovered, before his interview with Morton, or believed at the time of his statement to you, that total insensibility could be produced?

(Objected to as the impressions of witness. J. P. P.)

Ans. No; I did not so understand it. I thought Dr. Jackson meant to tell Dr. Morton, what every man of science, or liberal

education knew, that ether had some effect. I understood him as merely intending to ask Dr. Morton, why he did not try ether, as the best thing for the purpose which he knew of, and likely to have more effect than air. I state the impression which I got at the time from conversations.

5th. When you say he seemed desirous not to connect himself with "it," do you mean with the supposed discovery, or with Dr. Morton as an experimenter therein?

(Objected to for the same reason as the last. J. P. P.)

Ans. My impression was that he had not a strong faith in the thing itself; but that Dr. Morton would be a fellow who would push the thing through and sell patent rights, and would make money out of it, and then it would fall through, and that this might open a door to direct scientific attention. There was more in the manner and look of Dr. Jackson, than in what he said.

6th. At the time of this conversation, was anything said about any dental or surgical operation, or had there, as you recollect, been any performed?

Ans. My impression is that there had been, but I am not positive. My impression is strong that there had been a surgical operation performed at the time, and that that was what had made the great impression in the room.

7th. Did anything, and what, occur afterwards, to recall your attention to this conversation?

Ans. The conversation made a strong impression on my mind for several reasons. This subject of deadening sensibility to surgical operations, was one which I had thought of a good deal. I recollect, a long time previous, expressing my surprise that surgeons did not give something to deaden sensibility to pain, and expressed my belief that something of the kind would and could be easily discovered, and when I first heard this, it made great impression on my mind, as a subject upon which I had thought, and as confirming my predictions. I recollect also thinking at the time, that the charge was a pretty strong one for the information given. Afterwards, I saw in print somewhere that Dr. Jackson claimed the discovery, which struck me as so utterly inconsistent with his account of the matter, as before related, that it made a great impression on my mind, and strengthened the impressions which I had at the time of the conversation.

8th. Had you anticipated, from your own thoughts of which you have spoken, that total insensibility which had been discovered, or only a high degree of insensibility or alleviation?

(Objected to as irrelevant, and inquiring of the impressions of witness. J. P. P.)

Ans. I had never given the matter any investigation; but I had, on one occasion, suffered a great deal from a slight operation, and was peculiarly sensitive ever afterwards, to any kind of surgical operation; and I had requested, in operations upon the teeth, to be

informed if something could not be given to alleviate pain. I recollect once inquiring of an apothecary, if there was not something to be given for that purpose, and he told me there was nothing better than brandy. Like others I had known of, and seen the experiments with the laughing gas. Probably no more had occurred to me on the subject than to every educated man. I had thought that total insensibility might be produced. I recollect once saying that I did not see why a surgical operation could not be performed while a man was dead drunk.

9th. Have you any means of fixing the time and place of this conversation with Dr. Jackson?

Ans. I am very sure that the place was at the meeting of this Club, at the house of Mr. Abbot Lawrence. I have no means of fixing the time. I should say it was the first time the club met at Mr. Lawrence's.

Cross Interrogatories, by A. Jackson, jr., Esq., counsel for Dr. Charles T. Jackson.

1st. How long did this conversation last, as given by you in answer to 2d interrogatory?

Ans. It is impossible to state now; it was a short conversation.

2d. Do you recollect who the other gentleman standing near you was, when Dr. Jackson spoke about this matter?

Ans. I do not.

3d. If I rightly understood one answer you gave, it was, that Dr. Jackson strongly ridiculed the idea with which Dr. Morton came of affecting the imaginations of patients. Was this so?

Ans. No. He turned off that French story in a curt sort of a way, but I don't know that he intended to ridicule the idea, but only to say that there was nothing in that story.

4th. Did Dr. Jackson say anything to you of urging, or wishing, or directing Dr. Morton to go to the hospital with the ether?

Ans. No.

5th. Do you remember the words which Dr. Jackson said that Dr. Morton uttered when he came back to him?

Ans. I won't undertake to say that those were the exact words; I recollect distinctly of his saying that Dr. Morton was very much excited.

6th. Did Dr. Jackson say that Dr. Morton wished to use the bag with atmospheric air on a nervous patient, or on nervous patients?

Ans. I think he said generally on nervous patients.

7th. In what Dr. Jackson said of Dr. Morton as a reckless fellow, was anything said by Dr. Jackson as to Morton's ignorance about inhaling the ether, the mode of inhaling it?

Ans. No, I think not. I think all that was said about ether, was the expression I have used before, "why don't you try ether."

I certainly got the impression from Dr. Jackson, that he did not regard Dr. Morton as a man of any science at all.

8th. Whether or not, Dr. Jackson, in this conversation, undertook to give a full account of the matter, or how otherwise?

Ans. I should think not. It was a conversational account, somewhat hasty I should think, though I suppose at the time that I had got the whole general history of the matter, as that was my object in inquiring. It was a thing which took my interest at once.

9th. Did Dr. Jackson say anything about an extraction of a tooth, by Dr. Morton, from a person who had inhaled the ether?

Ans. I am not able to remember about that, but I think he did not.

10th. Was it spoken of, or known at the time of this conversation, an account of which is given by you, that pure sulphuric ether was used in inhalation?

Ans. That I am unable to say.

11th. Whether your attention was called to this interview and conversation with Dr. Jackson recently, or whether sometime ago?

Ans. When I first saw a statement made by Dr. Jackson, or his friends, I stated several times the conversation which I had. I am unable to say now to whom I first spoke of it. My attention has been called to the subject several times.

12th. Did Dr. Jackson state that he told Dr. Morton not to use the bag and atmospheric air? If so, did he give any reason why he so told Morton?

Ans. Not to my recollection.

13th. Did Dr. Jackson, in the conversation with you, speak of Wells and his experiments, or of what Wells had used?

Ans. No.

14th. Whether or not, you recollect that Dr. Jackson stated that his answer to Morton's asking for a bag, or saying that he proposed to try atmospheric air, was "why don't you try nitrous oxide, or what Wells had used?"

Ans. No. My impression is very strong, that the language was simply this, "why don't you use ether?"

15th. Whether or not, you recollect that Dr. Jackson, in this conversation, stated that he told Dr. Morton that he must get some pure sulphuric ether, when, as stated in answer to the 2d and 3d interrogatories, the phrase is "why not try ether?"

Ans. I have no recollection of his making such a statement.

16th. Whether or not, you recollect that Dr. Jackson said that he told Morton, after disposing, as you have said, in a curt manner, of the French soldier story, "I will tell you of something which will produce a real effect."

Ans. I don't remember that. My impression is very strong,

that the expression was just what I have used before, "why don't you use ether."

17th. Whether or not, the state of excitement which Dr. Jackson gave some account of in Morton, was said by him to have been shown by Morton at the time, and after he told him of using sulphuric ether.

Ans. I understood him to speak of Morton's excitement when he came to him afterwards, and told him of having tried the experiment.

18th. Whether or not, Dr. Jackson stated that the phrase which Dr. Morton used when he came back to Dr. Jackson's laboratory, after having been there before to borrow the gas bag, was, that "it succeeded perfectly," or something of such import?

Ans. I don't recollect that expression, nor will I undertake to swear to the precise form of expression used. It was substantially that, that he had made a successful trial of the ether.

19th. Do you remember that you heard then from Dr. Jackson any statements as to the recklessness or carelessness of Dr. Morton in his administration of the agent used for inhalation, or as to any disagreeable or dangerous accidents occurring from Morton's use of it?

Ans. No, I don't remember of his speaking specifically; but the general idea I got was, that Morton was a rash sort of a man.

20th. Whether or not Dr. Jackson spoke warmly, and in an emphatic manner, of Morton as a rash fellow?

Ans. He spoke emphatically, certainly.

21st. Do you recollect that the substance or agent used for inhalation to prevent pain was spoken of as then made public, or announced to the world, on the evening of this conversation, or that it was still kept secret?

Ans. I did not understand that there was any secret about it; but I did get the impression that, although regarded as a remarkable development, it was not then considered as a great discovery which had stood the test of scientific investigation, or that its value had been thoroughly tested, and that it was still somewhat doubtful whether it would answer expectations. [I did not suppose at that time that Dr. Jackson himself, from what he said, believed that ether could be used in the manner, and for the purposes for which it has since been used—I mean as regards its safety, efficiency, and universal application to purposes of surgical operations.]

(The part in brackets objected to, as not responsive, and as matter of opinion. J. P. P.)

22d. Before the evening referred to in your answers, had you any acquaintance with Dr. Jackson?

Ans. I had a casual acquaintance with him; I had met him frequently.

23d. Do you recollect why you asked Dr. Jackson about what the subject was? What called your attention to him?

Ans. I can't remember that, nor am I perfectly sure that I did ask him the question. Either I asked him, or some gentleman standing by me.

24th. Whether or not you recollect that, in this talk about the room spoken of in answer to the 2d interrogatory, Dr. Jackson's name was mentioned in connexion with the new discovery spoken of?

Ans. I don't remember that; it might have been.

25th. Whether or not Dr. Jackson stated that the charge of five hundred dollars was for the right to use ether by Morton in his practice, or for a transfer to Morton, or a quit claim of the right to use it?

Ans. I don't remember that he so stated.

Direct resumed by Mr. Dana.

1st. Did Dr. Jackson, at this conversation, allude to any experiments performed by him on himself or others?

Ans. No; I should have remembered that if he had said it.

2d. If you were informed that the first meeting of the Warren Club was at Dr. Warren's October 27, 1846, and the second meeting at Mr. Lawrence's November 13, should you say the meeting you attended was or not either, and which of these?

Ans. I should say it was the second meeting of the Club, because at the first meeting I was not present. I am also pretty positive that it was at Mr. Lawrence's.

PELEG W. CHANDLER.

COMMONWEALTH OF MASSACHUSETTS, { ss :
Suffolk County,

We certify that the foregoing is a true copy of the deposition *in perpetuam* of Peleg W. Chandler, taken before us upon the petition of William T. G. Morton, under the statutes of this Commonwealth.

GEO. T. CURTIS,
J. P. PUTNAM,

Justices of the Peace and Counsellors at Law.

Boston, December 15, 1852.

I, A. A. Gould, of Boston, in the county of Suffolk and commonwealth of Massachusetts, physician and surgeon, of lawful age, being first duly sworn, depose and say, in answer to interrogatories by A. H. Dana, jr., esq., counsellor, Dr. W. T. G. Morton.

1st. Are you a physician? how long have you been so? how long have you resided in Boston?

Ans. I have been a physician for twenty-one years. Have resided in Boston since 1827.

2d. Of what scientific societies are you a member or officer, and what officer, and how long been so?

Ans. I am a member of several societies, the American Academy of Arts and Sciences, the American Philosophical Society, the Academy of Natural Sciences of Philadelphia, the Boston Society of Natural History, and others; the Imperial Mineralogical Society of St. Petersburg, and two or three other foreign societies. I don't know that I am now an officer in any of them, though I have been in a good many of them.

4th. How long have you known Dr. Charles T. Jackson, and how intimately?

Ans. I first knew him some twenty-five years ago, and have been on as intimate terms with him as with anybody up to the last three or four years.

5th. How long have you known Dr. W. T. G. Morton, and how intimately?

Ans. I first knew him in the autumn of 1846. I have met him very frequently since that time.

6th. Please to state your first conversation with Dr. C. T. Jackson respecting the discovery of ether as an anæsthetic agent, how it arose, and the circumstances relating thereto?

Ans. I have no recollection of what led to the conversation, and an indistinct recollection of precisely what was said. I alluded to the dental operations performed by Dr. Morton under the influence of ether. It was probably three days after the first dental operation he said "yes, I told him. It is sulphurine ether." I can't recollect anything definite. I recollect various things which were said, but I can't say whether they occurred at that interview or not. In substance he said, "*well let him go on with it, I don't care what he does with it, if he don't bring my name in with it.*" I had but little conversation with him at that time, as I thought he seemed to disclaim having anything to do with it, further than having mentioned that article to Dr. Morton.

See Char-
dler an
other wil-
nesses.

7th. At the time he said this, had there been any surgical operation performed under the effect of ether at the hospital?

Ans. No, sir.

8th. At the time you had this conversation with Dr. Jackson, what had you heard or known respecting Dr. Morton's dental experiments with ether?

Ans. Mere rumors that such an operation had been performed by him, without pain, under the influence of something inhaled. I did not know, at the time, what it was. My wife first heard of it and told me, and I said "yes, that can be done, ether will do it."

9th. What did you know at that time about the anæsthetic effects of ether?

Ans. I simply supposed that it would produce momentary intoxication. The thought which occurred to me was that, like other substances inhaled, it would produce sudden intoxication, under which an operation might be performed without a patient taking cognizance of it. I knew the usual complaints for which it was administered, such as difficult breathing and cough, and difficulty of expectoration. This could hardly be called anæsthetic effects, however.

10th. Did you know of its use as an antidote to chlorine gas?

Ans. I had heard it mentioned by Dr. Jackson.

11th. When was this? Please state all your recollections of what he told you?

Compare this with the account of it given by Dr. J. after Wightman's dates were found fixed, and 1842 became necessary. Ans. This was some time within three or four years previously to that time. I recollect only his making a simple statement of his having been nearly suffocated by chlorine gas, and of having used this as an antidote with great relief.

12th. Did he at the time intimate any opinions that ether would produce entire insensibility to surgical operations?

Ans. I can't positively state. I have an indistinct recollection that something of the kind was sometimes said in connection with it.

13th. When, if ever, and what was said? Did it relate to entire or only partial or possible unconsciousness?

Ans. I cannot recollect when or what was said, but I received the idea that he had only partial relief in view.

14th. Please read the twelfth question? Have you any further answer to make thereto?

Ans. I would like to modify it and say that something was said about its producing relief from pain in surgical operations. I have no recollection of his saying at any time that it would produce entire relief.

15th. Was this stated by him as a discovery of a great truth, or as an opinion of something of possible value, or how otherwise? (Objected to as leading. J. P. P.)

Ans. I supposed it to be a speculation of his, not advanced as a possible discovery.

(This answer objected to as the opinion of the witness.)

16th. Did you know or believe that ether had the full anæ-

thetic power since demonstrated, at the time you heard of Dr. Morton's dental experiments?

Ans. I did not.

17th. Did Dr. Morton apply to you to receive him and his family as boarders?

Ans. He did. This was in September or October, 1846.

18th. Did you have any conversation—and what—with Dr. Jackson thereupon?

Ans. I consulted the family; but whether Dr. or Mrs. Jackson I can't say.

19th. Did Dr. Morton, after that, come to board with you?

Ans. He did.

20th. Did you have a conversation with Dr. J. C. Warren and Dr. Jackson together, on the subject of ether? When, and where, and what was it?

Ans. I recollect one occasion distinctly. It was two days previous to the first amputation at the hospital. I was conversing with Dr. Warren, at his house, I think, respecting the operations which had been performed—the operations on the jaw and on the arm—at the hospital. Dr. Jackson stood near. It was at a meeting of the Warren Club. I said to Dr. Warren, "Dr. Jackson had something to do with it." Dr. Warren turned to Dr. Jackson and said, "I understand that you have something to do with this ether matter." He said, "Yes, I told Morton of it." Dr. Warren said, "There is to be another operation on Saturday: and he wished he would go to the hospital and administer it; making some remark on Dr. Morton's unprofessional position. Dr. Jackson said he could not go; for in the first place, he should leave the city for the south, and, in the next place, he had committed the administration of it entirely to Dr. Morton. Nothing more was said, I believe.

21st. Cannot you recollect Dr. Jackson's saying anything more about Dr. Morton; his skill, or want of skill or science?

Ans. I don't recollect that he said anything. The conversation was very brief.

22d. Please state all the circumstances connected with the first experiment at the hospital, and the preparations therefor.

Ans. The evening previous, Dr. Morton, whose office was opposite to me, called to ascertain about the probable injurious effects of ether, and what articles might be used. I answered; and in the course of the conversation I asked him how he gave it. He told me that he put a sponge in a globe saturated with ether, and drew the vapors through a tube attached; breathed out and in through a tube attached. I suggested that the application of valves, to prevent breathing back the air into the globe, would be desirable, and sketched a plan. He said, "That is it;

Put this by the side of Dr. Jackson's slanders of Morton since the discovery.

Does this look like the author of such a discovery?

Graphic
description
of the first
operation
at the hos-
pital.

that is just it. I will have it for to-morrow." I advised him not to attempt it; but to use what he was sure he would succeed with. He then left me. He took the plan which I had sketched away with him. I went to the hospital, the next day, at the appointed hour. Dr. Warren was about to commence the operation. He suddenly rose and turned to those present, and said he had forgotten that he had promised to allow Dr. Morton to give something which he thought would prevent pain, and he would wait. In about ten minutes Dr. Morton appeared with an inhaler, with valves, such as I had proposed. He administered the ether. All looked very incredulous, especially as the man became at first exhilarated; but suddenly the anæsthetic effect took place. This occasioned a start of surprise from all present. Dr. Morton coolly informed Dr. Warren that his patient was ready. The operation was performed, which was the removal of a tumor from the jaw. I recollect one other incident. Previous to the operation, Dr. Warren, having waited ten or fifteen minutes, again turned to those present and said, "As Dr. Morton has not arrived, I presume he is otherwise engaged;" apparently conveying the idea that Dr. Morton did not intend to appear. The remark of Dr. Warren brought out a great laugh. Dr. Warren then sat down to his patient. Just as he raised his knife Dr. Morton appeared.

23d. Did Dr. Warren make any, and what remarks, to those present, in Dr. Morton's presence, after the experiment?

Ans. He made some inquiries of the man as to his having suffered pain, and he replied that he had felt something like scraping with a knife, during the operation. Dr. Warren seemed pleased, but said it would require further trials to settle its value.

24th. Did Dr. Morton say anything to Dr. Warren as to what it was he had used?

Ans. Not publicly. I saw, after the operation, that a conversation was passing between Dr. Warren and Dr. Morton, and observed the motions which Dr. Warren made: he nodded. I don't know of my own knowledge what passed between them. I told Dr. Morton, on the evening previous, when he called on me, that he had better tell Dr. Warren, before the operation, what it was he was going to use, as it would partly divide his responsibility, and Dr. Warren would not abuse his confidence. He said he would; but he arrived so late at the hospital that he had no opportunity.

25th. Did any one else than Dr. Morton have any charge or control over, or give any advice as to the administering of the ether?

Ans. Not to my knowledge.

26th. Was Dr. Jackson present at this experiment?

Ans. I did not see him.

27th. At the interview between yourself, Dr. Warren, and Dr. Jackson, at the Club, did Dr. Jackson say anything more than you have mentioned?

Ans. I presume he did; but nothing that I can recollect. The conversation was very brief. I did not pay attention to all that was said.

28th. Were you so that you could hear all that passed between them?

Ans. It was in a crowd. I can't state our relative position after the conversation which I have stated.

29th. Did any other interview on this subject occur between yourself, Dr. Warren, and Dr. Jackson?

Ans. I believe not. I am very sure of it. Dr. Jackson left the city, and I did not see him for several weeks after that.

30th. Did you hear Dr. Jackson ask Dr. Warren to allow the ether to be administered at the ensuing amputation, or anything to that effect?

Ans. No. The words relating to the administration of ether were almost *verbatim* what I have stated, and were introduced in the manner I have stated.

31st. Did Dr. Morton consult you, and how often, about administering ether to his patients?

Ans. He consulted me after having administered it several times, but not about administering it, except on the evening previous to the operation at the hospital; on several occasions, when unpleasant effects followed the use of ether, I was called upon by Dr. Morton, or persons in his office, to advise what was to be done to relieve the effects of it; it was to administer to the patient in each case.

32d. Did you, and when, and at whose wish, write to Philadelphia, respecting the administration of ether there?


Ans. A dentist from Philadelphia, whose name I have forgotten, called on me to ask if this new article was of real value; I told him it was; he purchased a right to use it; not succeeding in his first attempts at Philadelphia, he wrote to me expressing his suspicion that he had not been put fully into possession of the secrets; I replied to his inquiry; this was during the time patent rights were disposed of; it must have been among the earliest which were sold.

33d. So far as you could judge, did Dr. Morton conduct his administrations with reasonable skill, care, and success, or how otherwise? (Objected to as matter of opinion.)

Ans. In every case in which I saw him administer it, he did it so.

34th. Was there, or not, and how long, any, and how great, effort made against the use of ether?


Ans. There was a strong prejudice against it in this city, and more especially elsewhere; the administration of it was denounced

 generally, and many articles were written against it in the medical and daily journals; I don't know any particulars further than writing articles and denunciations in private conversations.

35th. What course did the dentists take in Boston?

Ans. They wrote articles in journals; I don't know of anything else; they talked against it.

36th. What did Dr. Morton do, if anything, and how far, in its defence?

 Ans. He wrote, and talked, too; I have seen several pamphlets, prepared, as I suppose, at his instance, and at his expense.

37th. To what extent did Dr. Morton devote himself to the subject? What effect had it on his health and business?

Note this, and compare it with Jackson. Ans. While he boarded with me, which was two or three months, during its earliest administration, he was overwhelmed, day and night, conducting the administration and introduction of ether; he became very nervous, and lost strength; as to his business, I have no acquaintance.

38th. Did you ever know of Dr. Jackson's giving any advice to Dr. Morton, as to the administering of ether, or its effects on his patients?

Ans. I know of nothing, except as to what I have heard of his saying at their first interview at Dr. Jackson's office.

39th. Did Dr. Jackson, during the early contest in Boston and elsewhere, to which you have referred, make any publications, or do any acts in defence of the ether?

Note this. Ans. I knew of persons frequently inquiring of him whether it possessed the virtues imputed to it; I know of nothing either written or spoken by him, excepting what he said to me, as I have stated, at the interview when I made my first inquiries.

Wells. 40th. What is your opinion as to the value of nitrous oxide as an anæsthetic agent?

Ans. General experience has shown it to be of little value.

Cross-interrogatories by A. Jackson, Jr., Esq., Counsel for Dr. Charles T. Jackson.

1st. When and where, at what time, and under what circumstances, did you first hear of the first dental operations performed under the influence of inhaled sulphurine ether.

Ans. I think I have already stated that I heard of it at my dinner table, from my wife; it was sometime in September, very soon after the first operation, I should judge.

2d. What can you now recall as having been stated to you by Dr. C. T. Jackson, in reference to the effect of sulphurine ether in inducing insensibility to pain? and this in connection with surgical operations, in or about the years 1841-2?

Ans. I can't state any definite time when I heard him say anything; I had heard him allude to it some three or four years be-

fore the time of Dr. Morton's experiments; I can recall no particular expression; I heard him speak of inhaling it after taking chlorine gas as an antidote, and as having given him much relief; I heard him speak of the students at Cambridge having inhaled it, and its having produced a sort of intoxication; and I have an indistinct recollection that allusions were made to the possibility of performing some rapid operations in surgery under its influence; nothing, however, that impressed my mind with his attaching any great importance to it.

Davy had the same idea as to nitrous oxide, but the world was no better for it.

3d. Can you ascertain and state the time when you first heard from Dr. Morton anything relating to the inhalation of sulphurine ether?

Ans. I cannot state the time precisely; it was in relation to some patients with unfavorable symptoms after taking ether, I think a Miss Shelton. At that time I asked his permission to see some operations, which he granted. I think I was the first physician who seen any operations in his office. Nothing was said in relation to the discovery. This was within the first fortnight after his using it. Several other times he called on me for the same purpose, but no special conversation in reference to it took place until the evening before the operation at the hospital.

4th. In how many cases have you ever seen Dr. Morton attend to the administration, by inhalation, of sulphurine ether?

Ans. Twenty or thirty, I should say.

5th. Whether, or not, Dr. Morton, or his assistants, in these cases, administered the ether?

Ans. With two exceptions, by Dr. Morton, I think. In those two cases, by his students.

6th. Your first acquaintance with the inhalation of sulphurine ether being in reference to medical prescriptions for patients with unfavorable symptoms, in how many cases were you called, during the first few weeks of Dr. Morton's use of sulphurine ether? Describe the condition of these patients?

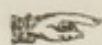
Ans. I was called to six or eight patients, one was in a state of very high excitement, almost a maniac; she was brought to my house, and was unable to go home for several hours. She was in a very highly excited state for several days afterwards, somewhat hysterical. She afterwards suffered in a singular way from a second operation. Some of them vomited profusely. One or two were lethargic, and roused with great difficulty. These were the principal phenomena which I recollect.

See answer to 29th interrogatory, p. 274.

7th. Whether or not there was much, if any public conversation, or rumor or expression of indignation, or otherwise, early in the administration of ether by Dr. Morton, as to his mode of administration?

Ans. There was much indignation and disapprobation from the profession, especially the dentists, and also, in several instances, by patients. In one or two instances, prosecutions were threat-

Where was Jackson now?

 ened; not particularly on account of the mode of administration but for administering it at all. In the case of Miss Shelton, especially, much dissatisfaction was expressed and still exists.

8th. Whether, in these cases, there was in patients any asphyxia, or tendency to it?

Ans. In none of the cases to which I was called.

9th. Whether, or not, any reports of these cases spoken of in answer to 7th cross-interrogatory, reached Dr. Jackson's ears? Whether he spoke with you of Morton's administering ether?

Ans. I don't know whether these cases were known to him. I have often heard Dr. Jackson speak disparagingly of Dr. Morton's experiments; especially as to his indiscretion and want of discrimination.

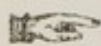
10th. Can you state, or ascertain the date when Dr. Morton was received in your house as a boarder?

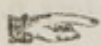
Ans. I have made some examination of my books, but cannot state precisely. It was the last of October, probably, or early in November.

11th. Will you please state when, and under what circumstances, you first had any knowledge of Dr. Morton?

Ans. I had heard Dr. Jackson speak of him as a student; but my first personal knowledge of him, was in August or September, 1846, when he called to request permission from me to place my name, as a reference, on his card. At that time, he gave me a summary of his alleged improvements in dentistry. When I spoke before of my first interview with Dr. Morton, I had forgotten this circumstance.

12th. Will you please state what Dr. Morton said then, of his improvements in dentistry?

 Ans. I recollect his speaking of some process by which he prevented the warping and shrinking of his blocks in baking them, and of his processes for moulding his gold plate; he mentioned other improvements which he expected to make, some of which I thought chimerical; especially his anticipation of being able to perform operations without pain.

 13th. Did he then say anything about using chlorine ether to destroy pain in dentistry?

Ans. Neither ether nor any other agent was mentioned.

14th. Will you please state what he said about destroying pain?

Note this. Ans. As near as I can recollect, he said, "and I will have some way yet, by which I will perform my operations without pain." I smiled, and told him if he could effect that, he would do more than human wisdom had yet done, or than I expected it would ever do.

15th. Did he state that he was engaged in any process by which he expected, or hoped to attain, to the performance of operations without pain?

Ans. I do not think he did.

16th. Was what he said about performing operations without pain, an utterance of a hope or wish of his?

(Objected to.)

R. H. D., Jr.

Ans. A hope.

17th. Did he then say anything of his being engaged in perfecting some process by which he expected to be able to fill teeth with a white preparation, King's cement, or something of that kind, instead of using gold?

Ans. I do not recollect it.

18th. Did you ever know, or learn from Dr. Morton, at what time he got a certificate from Dr. Jackson of his studentship under Dr. Jackson?

Ans. I recollect that after the discovery of etherization, a certificate was obtained from Dr. Jackson; and I think to enable him to gain the college of dental surgeons. I don't think I know any of the circumstances attending it.

19th. Suppose it were stated to you as a fact, that the meeting of the Warren club, at which you had some conversation with Dr. Jackson and Dr. Warren, in reference to recent painless surgical operations in October, 1846, was held on Tuesday, October 27th; whether or not you should say that that was the time when, as stated in your answer to 20th interrogatory, you think the interview was two days previously to the amputation at the hospital?

Ans. I think I stated that it was two days before, if the meeting of the Warren club was on Thursday evening, as it usually is. It was at the meeting immediately preceding the amputation.

20th. Whether or not the operation of November 7, was to have been performed in October, and was postponed from Saturday, October 31, to November 7.

Ans. I think it was quite possible that the operation was postponed, but having no hospital records, I cannot tell.

21st. Would you be kind enough to state all the conversation that you heard between Dr. Jackson and Dr. Warren at the interview, when the club met at Dr. Warren's house, on the 27th of October, 1846?

Ans. I have already stated every thing which occurred.

22d. Did you hear Dr. Jackson say to Dr. Warren that he sent Dr. Morton to him?

Ans. I did not.

23d. Did you hear Dr. Jackson say to Dr. Warren that he understood that the first operation about which there had been conversation, was not perfectly successful; that he understood that the patient felt a scraping, or something to that effect?

Ans. I don't recollect it—I ought to say that I paid very little attention to the conversation.

24th. Did you know or hear Dr. Jackson state in this conversation that there ought to be some more brilliant operation?

Ans. I do not recollect it.

25th. Will you please to state what remarks Dr. Warren made in reference to the position of Dr. Morton?

Ans. I think he said that as Dr. Morton stood in a somewhat unprofessional position, he should prefer to have Dr. Jackson administer it.

26th. Whether or not you can recall the words of Dr. Warren which he used in reference to the position of Dr. Morton?

Ans. Not distinctly enough to take my oath of them.

27th. Whether or not Dr. Warren said he did not like to have such a quackish fellow as Dr. Morton about the hospital, or words of that character?

Ans. He might have used an expression some what like this, he is some what quackish in his way ; but I think he did not make any reference to the hospital.

28th. Whether or not you knew, at this evening of the meeting of the Warren club, of an engagement of Dr. Jackson at the mining regions of Maryland, and of his absence? If, aye how long absent from Bosten?

Ans. He stated to Dr. Warren in my presenee, that he was to go to Maryland, and he was absent until near the 20th of November, at least until the 15th.

29th. In reference to the cases of bad effects of the early administration of ether by Dr. Morton, can you specify the causes of these, such as impure ether, want of atmospheric air, stiffness of the valves or the like?

Ans. I saw nothing different from what I have seen at different times ever since, at that time, in most instances, and perhaps the instrument with valves was not used. They were cases which, at the present day, would give no special alarm.

30th. Whether or not, during the early administration of the ether by Dr. Morton, in answer to any objection of the danger of using ether, Dr. Jackson stated, that any danger arose from the mode of administering it?

Ans. I did not hear of it during the time referred to, I heard of it three or four months afterwards.

31st. Whether you recollect an interview at your house, when Dr. H. J. Bigelow, Mr. R. H. Eddy, and Dr. Morton were present? can you state the date of this?

Ans. I recollect it. It was Sunday evening, November 15, 1846.

32d. Whether Dr. Bigelow went from your house for Dr. Jackson?

Ans. He did not at that time. He came from Dr. Jackson's to my house as he stated.

33d. How happened it that Dr. Jackson was then present?

Ans. Dr. Bigelow had made several efforts during the day to see him unsuccessfully. What induced him to come to my room

The discovery had now assumed its full importance

I know not, unless with the expectation of finding Dr. Bigelow there. It was known that I had taken some interest in this publication, and had been very solicitous that nothing should be inserted which involved the question of discovery and I had referred Dr. Bigelow to Mr. Eddy, sr., knowing him to have been oftentimes Dr. Jacksons' adviser.

34th. Whether Dr. Bigelow stated that he left word for Dr. Jackson to come to your house?

Ans. I do not recollect it, I supposed the meeting at my room to have been entirely accidental. It certainly was, so far as Dr. Bigelow, Dr. Morton and I were concerned. I do not think that any individual knew that any other of the party was to be present.

35th. Whether Dr. Bigelow had with him, at your house the proof sheets of the article published November 18, in the Boston Medical and Surgical Journal?

Ans. He had the manuscript, not the proofs?

36th. Had not proof sheets then been stricken off?

Ans. It was not then in type. The reason why Dr. Bigelow was so anxious to see Dr. Jackson on Sunday, was the necessity of giving it to the printer that night.

37th. Did Dr. Jackson, after he came in, sit or stand during the time of his presence at your house at this interview?

Ans. He stood most of the time; after an examination of the manuscript he sat down, and we had some general conversation.

38th. Whether the article was read in Dr. Jackson's presence?

Ans. It lay on the table and he read the concluding portion of it.

39th. Whether or not, Dr. Jackson stated at this interview that the article was unjust and unfair to him, in not clearly stating that the discovery originated with him?

Ans. I do not recollect it, I recollect it was stated to him that every allusion to the discovery had been avoided as far as possible. There was an allusion which seemed necessary, in which both names were mentioned, the names of both Jackson and Morton. It was simply the allusion to the patent.

40th. Whether or not, you stated that you were glad to see Dr. Jackson and Dr. Morton face to face, and that you had no doubt but that if he stated fully his claims to the discovery, Dr. Morton would fully admit what was his claim, or something to this effect?

Ans. I did say that I was glad to see them face to face, and that I had no doubt but that he would find that Dr. Morton would admit in general all he claimed, or something to that effect.

41st. Whether or not Dr. Jackson then stated, 1st. That he discovered that the inhalation of pure sulphurine ether would produce insensibility to pain. 2d. That he communicated this discovery on this fact to Dr. Morton, and requested him to employ it in extracting teeth, and that Dr. Morton assented to these pro-

positions. 3d. That he sent Dr. Morton to the Massachusetts General Hospital to request Dr. Warren to use ether in a surgical case, and that this Dr. Morton dissented from.

Ans. I can't recollect the distinct propositions; I recollect that several claims were made which Morton did admit. In relation to sending Dr. Morton to the hospital, Dr. Morton dissented. Dr. Jackson said he could prove it; I was anxious that the discussion should not be renewed, and trod upon Morton's toes, and he replied, "Well, if you can prove it, of course it must be so." Those were the precise words, as far as my recollection goes.

42d. Whether Dr. Bigelow said to Dr. Jackson, "You claim Morton to have been merely a tool, then," or words of this import?

Ans. I don't recollect them.

43d. Whether Dr. Jackson said to Dr. Bigelow "at all events an *intelligent* instrument," or words of this kind?

Ans. I don't remember it.

44th. Whether Mr. Eddy had any part or share in the writing or publication of the paper of Dr. Bigelow?

Ans. Not to my knowledge. We then had discussed the closing part of the article before Dr. Jackson's arrival, and had excluded one sentence by the advice of Mr. Eddy.

45th. Whether, during this interview, Dr. Bigelow or Mr. Eddy urged the publication of this paper against Dr. Jackson's objections?

Ans. I did not understand that after examining the paper, he made any objections; upon first entering the room, before looking at it, he protested against it strongly. The feeling I had was that he withdrew all objections after examining it, finding that there was nothing in there which touched upon the question of discovery.

46th. What could Dr. Jackson have been excited about when he entered the room?

Ans. I supposed he conjectured that some papers were about to be published advocating the claims of Dr. Morton as a discoverer?

47th. Had he heard anything of this paper before he came to your house? Did he know of this paper before he came? Did he know for what word had been left for him to come?

Ans. I presume he must have known of the papers before he came, as Dr. Bigelow had made several efforts to see him respecting it. I was informed that he had conversed with Mrs. Jackson in the course of the day respecting it; I can't say whether he knew for what word had been left for him to come to my house. I did not know that he was asked to come. I was not anticipating seeing any one.

48th. Has not Dr. Jackson uniformly, since your first interview with him, of which you speak in answer to 6th interrogatory, which occurred about three days after the first dental operation, whenever the question of who was the discoverer of etherization has

been mooted, stated that the *discovery* was exclusively his own or originated with him?

Ans. I can only say that he has not uniformly said he was the sole discoverer. He has never said anything that would contradict such an assertion. I never knew the time, first or last, when he did not declare that he told Dr. Morton to use ether of a particular quality and that it would be safe. There have been a good many occasions when the doctor has spoken about it, when nothing was said about the discovery. For the first two months or more, the difficulties between Drs. Jackson and Morton related more especially to other points. Since that time, he has uniformly asserted that he was the original discoverer.

“Why don't you try ether?”
Chandler.

49th. What is meant by the word uniformly, in the last answer? Whether or not that Dr. Jackson has always said, whenever it has been stated that Dr. Wells or Dr. Morton, or any body else, was the discoverer of etherization, that he was, and so considered himself the discoverer?

Ans. We were meeting almost every day, when there were conversations about ether, in which nothing was said about discovery. I don't recollect of conversing with him about any other person than Dr. Morton in relation to this matter. On this point, I can say no more than I have answered in my preceding answer.

50th. Whether or not you remember that whilst Dr. Jackson was absent in Maryland, Dr. H. J. Bigelow read a paper concerning etherization on or about November 3d, before the American Academy?

Ans. I do.

51st. Whether or not you recollect that in reading that paper, or in connexion with it, Dr. Bigelow ascribed the first suggestion of the use of sulphurine ether to Dr. Jackson, and its use under his advice or direction to Dr. Morton?

Ans. I do not recollect.

52d. When did Mr. R. H. Eddy call upon you for the purpose of consulting the by-laws of the Massachusetts Medical Society?

Ans. It was the evening before Dr. Jackson signed the application, or something about the patent. That was the 28th of October, or the latter part of October.

53d. Can you state what opinion you then gave to Mr. R. H. Eddy? See testimony of R. H. Eddy; also of Chandler.

Ans. The substance of it was that Mr. Eddy said that Dr. Jackson objected to taking out a patent on the ground that the laws of the Massachusetts Medical Society forbade the use of secret remedies. I replied that a patented article was not a secret one, that Dr. Jackson had given up his profession for science, and must live by the results of his scientific pursuits; that if the society should see fit to expel him under such circumstances, I should say let them expel. I promised to see Dr. Jackson in the

Dr. Jackson first charged \$500 for advice, and then took 10 per cent. on sales.

morning and express this opinion to him. I did call, and he told me he had already signed the papers. Mr. Eddy represented that Dr. Jackson said that if I thought there was no objection, he would consent.

54th. Whether or not you sent word to Dr. Jackson by Mr. Eddy to the effect as stated in the last answer of your opinion about the propriety of taking out a patent?

Ans. I did not send that word, because I had promised to call. I understood from Dr. Jackson that Mr. Eddy had communicated my opinion to him.

55th. Did you know from the parties in interest what was the amount of interest of Mr. R. H. Eddy in the patent? What was this?

Ans. I knew from Mr. Eddy and Dr. Morton. It was stated that Mr. Eddy had arranged that the preparation of the papers was to be entrusted to him. The money was to pass through his hands, and, after deducting his charges, he was to render a periodical account and pay over the balance. I never knew of any other copartnership interest. Mr. Eddy stated that this course was adopted simply for security for his services. This was in relation to American patents. In relation to foreign patents, it was also understood that, if they were successful in obtaining one, there was to be a division of the profits.

56th. Before September 30, 1846, was anything known of the anæsthetic effects of the inhalation of sulphuric ether?

Ans. I am not aware that anything relating to its anæsthetic effects by inhalation had been noticed. It had been used for that purpose by being taken into the stomach.

57th. Did any medical authorities, anterior to September 30, 1846, teach that the inhalation of the vapor of sulphuric ether would be attended with safety?

Ans. I never have examined to ascertain that point; I am not aware of any.

58th. So far as your knowledge extends, did any one know that the vapor of sulphuric ether could be inhaled with safety to such an extent as to prevent pain, before Dr. C. T. Jackson pointed out the two conditions? First, partly from alcohol and acids; second, the due admixture of atmospheric air while inhaling ether—supposing him to have so said.

Ans. I don't know.

59th. Whether or not you knew of advertisements of Dr. Morton's in the Boston newspapers? Will you please state the character, if you know of or saw them.

Ans. There were advertisements, and I frequently wrote them myself, at his request. They announced that he was employing a compound recently invented, by which he could perform dental operations without pain.

60th. Will you please state how it happened that you wrote them? Why Dr. Morton did not write them?

Ans. Not being accustomed to writing himself, from lack of early advantages, and being a resident in my family, he requested me to put in form his advertisements. This I did, in such language as he dictated, as his amanuensis, and oftentimes not as expressing my own opinion. Some of them appear to have been verbally altered previously to publication. Some of these articles have been ascribed to me, as expressive of my own sentiments. I wrote as an amanuensis.

61st. Will you please look at page 45 of Report No. 114 to 30th Congress, 2d session, February 23, 1849—a report of Dr. Edwards. Is the following statement of Dr. Keep's, according to your recollection of the facts, as there stated: "I became associated in the business and practice of dentistry with Dr. Morton on the 28th of November, in the year 1846. On the next day we were about to prepare an advertisement for publication, when Dr. Augustus A. Gould called at our rooms. Being pressed with business, I requested him to write the advertisement, with which request he complied. After he had written it, which he did at his own house, he brought it to me, and we read it together. In it the discovery of etherization, without any suggestion having been made by me to that effect, was ascribed, in explicit terms, to Dr. Charles T. Jackson. Dr. Gould, pointing with his finger to the words in which this ascription was expressed, said to me, 'that will please Jackson.' I then showed the advertisement to Dr. Morton, and we read it together. He then exclaimed, with emphasis, that is good; I like that; I'll take it to the printer."

Ans. It does not convey my idea precisely; it tells the truth, but not the whole truth. I had observed that Dr. Jackson's name had been, for the most part, omitted in the advertisements of Dr. Morton, and was desirous that his name should not thus be lost sight of. I therefore determined to introduce Dr. Jackson's name in the proposed copartnership notice, and did so, by alluding to the anæsthetic agent which had been introduced by Drs. Jackson and Morton, ascribing it to neither of them separately, but to both of them unitedly. My desire was that Dr. Jackson should be recognized as connected with the discovery, without indicating the amount of his claim, whether more or less. It was in reference to this introduction of his name that I said, "that will please Jackson."

62d. Whether at that time you wrote one or several advertisements; and if not at that time, whether or not before or after that time, in relation to the copartnership of Dr. Morton and Dr. Keep?

Ans. I wrote a rough draught of an advertisement at that time, which I afterwards copied with some verbal alterations; what those were I cannot now state.

63d. Whether or not, in your early acquaintance with Dr. Morton, his knowledge, or want of knowledge of dentistry, and matters therewith connected—his knowledge of ether, and their various kinds and properties, came under your observation? Will you please state as to his knowledge or want thereof?

Ans. I had no acquaintance at that time either with his knowledge or want of knowledge of dentistry or chemistry, or materia medica.

64th. Whether you stated that you knew, after a few minutes conversation with Dr. Morton, that etherization never originated with him; that, when he first came to you, he knew nothing of the effects of ether or its constitution, or words of such import?

Ans. My first impression was, before seeing Dr. Morton, that Dr. Jackson must have put him on the track, and I so expressed it after my conversation with him respecting ether. I might have made the remark that he was comparatively ignorant of its properties. I did not then express the opinion that he could not have been the discoverer.

65th. At what time, if ever, you learned from Dr. Morton of any use of ether by inhalation, or to prevent pain in surgical operations, by him, anterior to the 30th of September, 1846?

Ans. Never.

66th. For how long a time did he remain in your house?

Ans. Between two and three months.

67th. In any conversation at your house, did he never speak of any use, by him, of ether on a dog, or on animals, or on himself, by way of experiment, in order to test the effects of the inhalation of ether?

Ans. I have heard him mention such experiments, but I cannot recollect their date. I think it was not during the time he was with me, or if so, it must have been during the latter part of that time.

68th. Can you state when he first spoke of such use of ether?

Ans. I cannot.

69th. Can you state when he said he so used ether? Whether he said he used it before the 30th of September, 1846?

Ans. I cannot state when he said it, but I can state that the experiments he alluded to were previous to that time; I think during the previous summer.

70th. Can you state when he first spoke to you of such experiments? Whether he described the experiments which he said he tried? Whether he said he used ether by inhalation? Whether he said for what purpose he tried such experiments?

Ans. I can't say when he spoke of it. I have an imperfect recollection only of his speaking of his experimenting upon a dog at his place somewhere in the country. I do not recollect that he stated any object he had in view. He stated that he used ether by inhalation in these experiments.

71st. What is the effect of ether on quadrupeds? Are not their hinder extremities paralyzed for some ten or fifteen minutes after they recover from the etherized state, so that they drag them about after them?

Ans. I never witnessed any experiments upon animals.

72d. Whether or not you remember, that at a meeting of the American Academy, after the meeting of November 3d, at which meeting, held at Tremont Row, Dr. Jackson, having then returned from Maryland, was present, that Dr. H. J. Bigelow had some conversation with Dr. Jackson touching the origin of etherization, in which you participated?

Ans. I cannot recall any such conversation.

73d. Whether or not Dr. Bigelow, in this interview, stated to Dr. Jackson that he orally stated, when he read his paper of November 3d, that the matter originated with Dr. Jackson, and that Dr. Morton obtained his knowledge from him?

Ans. I don't recollect it.

74th. Whether or not you knew of Dr. Jackson's engagements in the fall of 1846? Whether or not he was very busy in finishing and working over assays of ores?

Ans. I knew of his going to Maryland, and of his being very much interested in the new article of gun cotton, but did not know of his engagement in assaying ores.

75th. Do you remember any remarks of Dr. H. J. Bigelow's, made to you after witnessing the first or some early experiment at the Hospital, to this effect: "I will make the first publication, for it is a thing on which one may ride round the world?" or some remark to that effect?

Ans. No, sir. The question probably alludes to a remark of Dr. O. W. Holmes in Dr. Bigelow's presence, a hint of which Dr. Bigelow availed himself. That was long previously, however, to the operations at the hospital.

76th. Whether or not, at some time in the winter of 1846 or 1847, a statement was drawn up by you, in which was set forth the claims of Dr. Morton?

Ans. There was such a statement. It also set forth the claims of Dr. Jackson, though less perfectly, as a person selected by Dr. Jackson had undertaken that part of the statement.

77th. Whether or not Dr. Morton had then stated to you that in his experiments, or attempts to prevent sensibility to pain, he had tried or had recourse to effects on the imagination, or mesmerism?

Ans. He never made any such statement to me.

78th. At the time you drew up this statement, had Dr. Morton made any statement to you of any use by him of pure sulphuric ether, or experiments by him with sulphuric ether, anterior to September 30, 1846, to induce insensibility to pain in surgical operations?

Ans. He proposed that I should make an allusion to certain experiments, which had then been published, I think, in some of his controversial papers.

79th. Was that the first time you had heard of such experiments, which he had then had published?

Ans. I had read his publications.

80th. Before you read his publication in which these experiments were set forth, had you heard from him an account of them?

Ans. I must refer to my previous answer. I have stated what I heard from him.

81st. Whether or not you are familiar with the facts connected with the early history of etherization?

Ans. I think as much so as any other person.

82d. Whether or not, in your own mind, you have confidence in the alleged experiments of Dr. Morton?

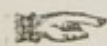
Ans. I should never deny what I had no means of disputing. I had omitted them in this statement, feeling that they had no important bearing on this question of discovery, feeling that they would complicate the matter.

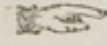
83d. Did Dr. Morton ever state to you that he ever derived any information from Dr. Jackson in relation to sulphuric ether? If yea, when did he first state this?

Ans. I have heard him say that Dr. Jackson proposed the use of it, and directed the quality of the article to be used. This must have been very soon after his first use of it by inhalation.


84th. Were you present at the operation at the Bronfield House on the 21st of November? If yea, do you remember whether Dr. Morton or Dr. Warren administered the ether?

Ans. I was present; Dr. Morton administered the ether, not Dr. Warren; such has always been my recollection of it; certainly, I am sure he was there.

 85th. Whether or not, what you have stated in answer to 6th interrogatory, as spoken by Dr. Jackson, about not bringing in his name with it, was spoken in connection with Dr. Morton's wish to get a certificate to publish in the papers, or in connection with what Dr. Jackson said of Dr. Morton's recklessness?

 Ans. I do not know that it was in connection with either. It seemed simply to be in connection with the use of ether.

86th. Has not Dr. Jackson refrained from introducing the discussion of his claim to this discovery of the anæsthetic effects of ether at the Warren Club, and at the Boston Society of Natural History? And are you not aware that this forbearance was with an idea of avoiding, on his part, personal matters in scientific discoveries in the societies?

 Ans. I did not suppose that he had avoided it from any such motive; I supposed that his absence was the main reason why he did not introduce the subject, because he afterwards strongly in-

sisted that his claims should be considered by the academy, contrary to the general wish of the members.

87th. Whether or not, in numerous conversations in October and November, 1846, you repeatedly heard statements by Dr. Jackson, that he proposed the use of sulphuric ether to Dr. Morton before Morton's first dental operation under the influence of it, and for the express purpose of using the ether to induce insensibility?

Ans. I did.

88th. Whether or not, your statements have been that Dr. Jackson proposed the use of sulphuric ether by inhalation by Dr. Morton; that he specified the use of rectified ether; that he directed the manner of administering it; and that he assured Morton of his safety?

Ans. Yes. I mean its use at the first operation.

89th. Whether or not, you remember that at a meeting of the Boston Society of Medical Improvements, soon after the discovery was announced to the world, that Dr. Jackson moved for a committee to collect and record all the cases in which ether was used, with all the facts therewith connected.

Ans. I do not.

90th. Whether or not, you have expressed the opinion that Dr. Jackson is in the same category in relation to the discovery of etherization, as *Leverrier* is in relation to the discovery of the new planet Neptune?

Ans. By no means. I conceive that an induction from mathematical laws is entirely different in its value from an induction from physiological phenomena.

91st. Can any person be the author of a discovery in the inductive sciences without either originating any new idea, or devising the means of establishing the truth of a conjecture, whether more or less probable, previously brought to view by another person?

Ans. The question involves so many combinations that I cannot answer it. It would require me to look over the whole catalogue of inventions. The question expresses the general process in the making of discoveries on inventions.

92d. Whether or not, you can specify any new idea connected with the discovery of etherization first originated by Dr. Morton, or any new experiment devised by him by which that discovery was established?

Ans. I cannot; my knowledge on that point extends simply to his processes in developing the effects of etherization. Every experiment performed by Morton directly tended to develop the discovery; and if the discovery is meant to include the advances in the knowledge of the effects of ether vapor, then Morton's first use of it for a prolonged period, in an operation by Dr. Dix, and his alleged introduction of it at the hospital in a capital operation,

may be considered a new experiment. The first administration of it in obstetrics, by Dr. N. C. Keep, must be considered as another, and a similar step in the discovery.

Direct resumed by Mr. Dana.

1st. In the conversation at your house of the 15th of November, did Dr. Jackson claim to have discovered, independently of Dr. Morton's experiments; the power which ether was then proved to possess?

Ans. No. The conversation simply alluded to his connection with Dr. Morton to the information he gave him.

2d. In the cases at Dr. Morton's office, which produced effects, to which you have referred, and where you were called in, were these effects, and how far attributable to any ignorance or recklessness of Dr. Morton, allowing for the state of the art at the time?

Ans. I should say no. They were just such effects as are commonly seen now; I sometimes suspected them to arise from the ether being of an imperfect quality, not being properly rectified.

3d. Did Dr. Jackson, in the conversation at your house, claim to have told Dr. Morton, at the interview of September 30th, that he had then discovered the power of ether, which was known at the time of this conversation.

Ans. He did not.

4th. When Dr. Morton said to you, "and I will have some way yet, by which I can perform my operations without pain," had you any suspicion to what he referred?

Ans. I had not.

5th. Please refer to your answer to the 92d cross interrogatory, and connect it with the first two experiments at the hospital, and Dr. Morton's dental experiments before them.

Ans. I conceive that the first and only idea, so far as the discovery is concerned, was the inhalation of ether vapor of a pure quality. The first operation involving pain was performed by Dr. Morton.

6th. Do you consider the entertaining idea that ether could be inhaled independently of any experiment, to see what power and effect it had, as being the discovery of the anæsthetic power of ether?

Ans. I do not. In no case can the physiological effects of an agent or individual persons be pronounced *à priori*.

Dr. Jackson's suggestion distinguished from this discovery. 7th. Considering the nature of the subject-matter, how far is an idea that ether vapor might produce some effect in the way of mitigating, or relieving, or destroying pain, without any experiment producing pain; a discovery of what is now known?

Ans. I should say none whatever; it is a plausible idea, and would deserve a trial.

8th. Have or not, similar ideas been commonly entertained as to different gasses, vapors, and liquors, and been more or less experimented on?

Ans. They have.

9th. Suppose a person to have inhaled ether for some other purpose, privately, and without any cut or wound, or other act producing pain, and found himself becoming unconscious, with numbness before and after unconsciousness, could he, or not, make a fair induction that he would be insensible to a surgical operation?

Ans. In my view he could not, because similar conditions have been induced by other remedies, which have not had the power of destroying pain in surgical operations.

10th. Did you ever know Dr. C. T. Jackson to perform any anæsthetic experiment?

Ans. I have never seen him; I have heard of his administering it at the Insane Hospital during the summer of '47, and also to Indians and others about Lake Superior, during his survey there in 1847-8; I think I must except the case alluded to in my previous answer as having been performed on himself, which I only know from his own statement.

11th. Please read your answer to the 83d cross-interrogatory. Did Dr. Morton admit that he received his first idea of using ether from Dr. Jackson, or that Dr. Jackson did, in fact, make a suggestion?

Ans. He admitted that Dr. Jackson, on this particular occasion, proposed to him that he should use sulphuric ether; nothing was said about this being an original idea.

12th. Did Dr. Morton ever admit that Dr. Jackson said to him that he could use it with success?

Ans. I think he did; he admitted that he told him that by administering it he could manage his patient as he pleased; that was the only case alluded to in their interview, as I understood it; I mean the dental patient, for whom he was in search of something.

13th. Did he ever admit that Dr. Jackson told him, intimated to him, the effects now known to be produced?

Ans. He never did.

14th. From the nature of the subject-matter, do you, or not, consider the discovery to have been made before an experiment producing, constitutes the discovery?

Ans. I do not.

Cross resumed by Mr. Jackson.

1st. Did not Dr. Jackson, at the interview at your house spoken of in answer to the third direct resumed, claim that he had,

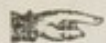
The same idea commonly entertained and experimented on.

This is what Dr. Jackson claims to have done (but without any proof) in 1842. In the opinion of this scientific and distinguished witness, if the facts were even as pretended, it would have amounted to nothing, and in fact nothing ever came of it. See also next page, interrogatory 2.

anterior to September, 1846, discovered that pure sulphuric ether inhaled would produce insensibility?

Ans. I can't recollect the portions he did take, with one exception, as previously stated; I believe he has always made that claim since it become a matter of controversy.

2d. Suppose the case, as stated in 9th direct resumed, with this condition added, "some of severe pain, which was suffered before inhalation of ether," then, in your opinion, could not the induction be made that insensibility would be the result of inhalation, and that a painless operation might be performed?



Ans. My answer would be the same, and my reasons the same.

Direct resumed by Mr. Dana.

1st. Did he make the claim referred to in first cross resumed in your first conversation with him on the subject of Dr. Morton's experiments?

Ans. I have no recollection that he did.

AUGUSTUS A. GOULD.

COMMONWEALTH OF MASSACHUSETTS, }
Suffolk county. } ss.

We certify that the foregoing is a true copy of the deposition *in perpetuam* of Augustus A. Gould, taken before us upon the petition of Dr. William T. G. Morton, under the statutes of this Commonwealth.

GEO. T. CURTIS,
J. P. PUTNAM,

Justices of the Peace and Counsellors at Law.

Boston, December 16, 1852.

I, Caleb Eddy, of Boston, of lawful age, being first duly sworn, depose and say, in answer to interrogatories by R. H. Dana, jr., esq., counsel for Dr. Wm. T. G. Morton:

1st. How long have you resided in Boston? What has been your occupation? What public offices have you held?

Ans. I have resided in Boston since 1799. I commenced in the ship chandlery business in 1807. I was in that business seventeen years. In 1824 I was appointed agent of the Middlesex and Merimack river canal. I was twenty-one years in that office. I was in the board of aldermen of the city of Boston for two years.

2d. How long and how intimately have you known Dr. Charles T. Jackson?

Ans. I can't tell exactly, but it was in 1835 that I think I first knew him. My son employed him to analyze the waters of the ponds about the city of Boston. I then saw him at my son's office on Merchant's row, in State street. My acquaintance began there. My acquaintance with him, since that time, was very intimate up to 1847. He was located in Hanover street when I first became acquainted with him. Our intimacy was pretty strong. He lived next door to me five or seven years. I was the means of procuring him two houses in which he lived. I bought for him the house in which he now lives, and hired for him the one in which he previously lived in Green street. Our families were as intimate as they could be. If any of Dr. Jackson's family was sick my wife was in there all the time.

Witness on intimate terms with Dr. Jackson, and unacquainted with Morton till this discovery.

3d. Have you known Dr. W. T. G. Morton? How long and how intimately?

Ans. The first knowledge I had of Dr. Morton, was at the time he applied to take a patent on ether. He applied to my son, and I had a part of my son's office at the time. I have not known him very intimately. I saw him there often, but was not particularly acquainted with him. Sometimes I took no notice of him, being busy myself. At other times I was at leisure and heard what was said.

All his prepossessions in Jackson's favor.

4th. At the time the controversy began between Dr. Jackson and Dr. Morton, on which side, if either, were your sympathies and prepossessions? (Objected to.)

Ans. They were in favor of Dr. Jackson, for I had known him a good while, and had not known Dr. Morton but a short time.

Important interview with Dr. Jackson on the 23d October, 1846.

5th. Had you an interview with Dr. C. T. Jackson, in which the ether discovery was talked about, in the fall of 1846? If so, state where and all the circumstances?

Ans. I had an interview with him at that time. His wife and wife's mother were at my house spending an evening, and Dr. Jackson came in a little past eight o'clock. This was the 23d day of October, 1846. When he came in, he inquired for my son, Robert H. Eddy. I told him he had gone to the theatre, but would be back at nine o'clock. He came into the room and sat down, and entered into conversation. In the course of the hour, between eight and nine, the conversation took place which is recorded in the letter to the surgeons of the Massachusetts General Hospital, given by me in answer to a letter from Drs. Hayward, Townsend and Parkman. During the evening, I requested him to relate to me the history of the new discovery for the prevention of pain in surgical operations. He stated to me that Dr. W. T. G. Morton called on him during the latter part of the last month, to obtain the loan of a gas-bag, which he said it was his intention to use for the purpose of administering atmospheric air, or some-

Jackson narrates the circumstances of his alleged suggestion to Morton.

thing else, to a patient, to quiet her fears, in order that he might extract one of her teeth; that he, Dr. Jackson, informed Dr. Morton that his gas-bags were in the attic story of his house, and it would be attended with some trouble to procure them; that Dr. Morton stated that he was desirous of operating on the imagination of a person, in some such way as was said to have been practised on a criminal condemned to death, viz: by suffering warm water to trickle upon and from some wounded or lanced part of the body, while the eyes of the person were bandaged. Dr. Jackson stated that he told Dr. Morton that such an experiment would prove a failure, and he would be ridiculed for making it; that he had better let her breathe some ether, if he could induce her to inhale it, which would put her to sleep, and then he could pull her tooth and she could not help herself, or could not prevent him by any resistance; that Dr. Morton inquired of him

The direct question put to Dr. Jackson,

"Did you know at such time, that after a person had inhaled ether, and was asleep, his flesh could be cut with a knife, without his experiencing any pain?"

To which Dr. Jackson answered:—

"No, nor Morton either; he is a reckless man for using it as he has."

Ans. No sir, he did not.

7th. Did Dr. Jackson say anything to you respecting the taking out of a patent, or respecting his protesting against the taking out of a patent, or being repugnant to having his name associated with Dr. Morton?

Ans. Not at that time, and I don't recollect that he did at any time. What was stated there amounted to pretty much all the interviews I had with Dr. Jackson on this subject. I have no recollection of any conversation afterwards with Dr. Jackson until I met him in Court street sometime in 1847. I said "Good morning, Doctor," and he made no answer. I then said I wanted a little conversation with him when he had leisure. I wanted to see if I could not settle the difficulty between him and Dr. Morton. He had previously advised with me in reference to the difficulty between him and Professor Morse. He showed me a letter which he had received from Morse. His reply was, "If you have any thing to say to me, sir, you must say it to my attorney," and turned and left me. Two or three times after that I met him and bowed to him, but he did not return it.

8th. Was this interview in the street before or after the pub-

lication of the report of the experiment?

Ans. It was before the publication of the report.

9th. Did you see Dr. Jackson after the publication of the report?

Ans. I saw him several times after the publication of the report, but he did not return my bows.

10th. Did you see Dr. Morton after the publication of the report?

Ans. I saw him several times after the publication of the report, but he did not return my bows.

11th. Did you see Dr. Jackson after the publication of the report?

Ans. I saw him several times after the publication of the report, but he did not return my bows.

12th. Did you see Dr. Morton after the publication of the report?

Ans. I saw him several times after the publication of the report, but he did not return my bows.

13th. Did you see Dr. Jackson after the publication of the report?

Ans. I saw him several times after the publication of the report, but he did not return my bows.

lication of your letter to the surgeons of the Massachusetts General Hospital?

Ans. After, I think.

9th. Have you had any interview with Dr. Jackson, at which the ether discovery, or his concern therein, or the patent therefor, was matter of conversation, except that of October 23, 1846?

Ans. No, sir, not that I have any recollection of. I know I have not. I never have spoken to him since, for I considered he meant to break off all further conversation, at the time I met him in Court street.

10th. Did Dr. Jackson then, or ever, relate to you any original researches or experiments of his with sulphuric ether?

Ans. No, sir; no more than I have stated.

11th. Did Dr. Jackson then or ever, say any thing to you respecting his having made an early discovery on this subject in 1842, or at any time before this time?

Ans. No, sir.

12th. Did Dr. Jackson, at this interview of October 23, 1846, or ever, reply to you, in substance, that when he told Dr. Morton to use ether, he did know, or had no doubt that flesh could be cut without pain while under its effects?

Ans. No, sir.

13th. Did he then or ever, tell you that his own mind was satisfied, before any actual experiment, and that it was only necessary to have an operation before announcing it as a fact?

Ans. No, sir.

14th. Have you read the statement of Dr. Jackson's counsel on pages 12 and 13, of Messrs. Lord's defence of Dr. Jackson's claim, published in 1848? Does that cause you to desire to make any change in, or addition to, your testimony?

Ans. I have read it. It does not cause me to make any change or addition to my testimony. I wish to state that what is there stated, the greater part of it, is incorrect. Dr. Jackson told me nothing about 1842. It was not mentioned.

15th. Please state what parts of that statement are and what are not correct?

Ans. Dr. Jackson's statement that he called upon me for the purpose of protesting against the patent, and expressing his repugnance to having his name associated with Dr. Morton, &c., is not correct. He could not have called upon me for any such purpose. He called upon my son, and when my son came in at nine o'clock, he left the room with him, and I know not what passed between them. I don't know what he wanted of my son, nor did he state what he wanted. Dr. Jackson's statement that "he related to Mr. Eddy his original researches and experiments with sulphuric ether, and affirmed that the discovery of its efficacy to destroy the sensation of pain had been made in the year 1842," if it refers to me, is incorrect. He stated no such thing.

Flat denials under oath of Dr. Jackson's statements.

His statement that "Mr. Eddy then asked Dr. Jackson if, at that time, he was aware that, after the ether had been inhaled, the flesh could be cut with a knife without the sensation of pain," is not correct, if it refers to 1842. My inquiry of Dr. Jackson had reference to that present time, October 23, 1846. His statement that "Dr. Jackson replied that he was satisfied it could be done, that he had not the least doubt of it, but still that an actual operation should be performed before publishing the statement as a *fact*; and for this reason he gave Dr. Morton his instructions to perform a dental operation upon a person under the influence of ether, before publishing his discovery," is incorrect. Nothing of the kind was said.

Cross-interrogatories by A. Jackson, jr., Esq., counsel for Dr. Charles T. Jackson.

1st. When did your first knowledge of Dr. Morton begin? At what date?

Ans. I knew nothing of him till he applied for a patent at the office of my son. It was in 1846, I think; I can't fix the date.

2d. In what month of 1846, did he apply for a patent?

Ans. I can't recollect. I made no memorandum of it.

3d. When was the interview at your house, spoken of in answer to the fifth interrogatory?

Ans. October 23, 1846.

4th. How do you ascertain this date of October 23?

Ans. When I wrote the letter in reply to the surgeons, it was fresh in my memory; but, in order to be sure of it, I went into the Atlas office to see what the play was which was performed that night, and to see if I was correct, and I found that I was.

5th. Does your recollection, or knowledge, of the date depend solely on the play performed at the theatre, as advertised in the Atlas?

Ans. No, sir. I had written the letter before I saw it, but that confirmed it.

6th. Are not the same plays performed at the theatre on many successive days ordinarily?

Ans. I believe that was not. I am very sure it was not.

7th. Did you make any memoranda at that time of the date, or of the interview with Dr. Jackson?

Ans. I made one with my pencil about that time, but what has ever become of it, I don't know.

8th. When did you make these memoranda?

Ans. It was some days after the interview with Dr. Jackson.

9th. How happened it that you made these memoranda? Please state fully.

Ans. My son had told me some time before the time of my interview with Dr. Jackson, that there had been a discovery made,

by which a limb could be cut off without pain. I made the memorandum after the interview, and before I wrote the letter to the surgeons. I can't tell why I made it. I often make memoranda of remarks which are made in that way. It is so long since I can't recollect all those minutiae. It is some six or seven years ago. I might have had some reason for making it then; but it has escaped my memory. I recollect very well that, at the time I replied to that letter, I had those minutes.

10th. Did you speak with your son, R. H. Eddy, before making these memoranda, and after the interview with Dr. Jackson, and did he suggest this course?

Ans. I don't recollect certainly; but I think my son said to me that he had been making some memoranda himself, and he thought I had better make a memorandum of all that was said.

11th. Did your son give you any reason why you should make these memoranda?

Ans. No, sir.

12th. Did you make these memoranda yourself, in your own handwriting?

Ans. I did.

13th. At the time, as you state, you went to the newspaper office about the date, was your letter written?

Ans. Yes, sir. It was the same day.

14th. Was the letter *dated* when you went.

Ans. I think it was, sir.

15th. How long before you wrote the letter did you make the memoranda?

Ans. I could not tell whether it was a week, ten days, or twenty days.

16th. Had your memoranda any date, showing when you made them?

Ans. I can't tell. I remember distinctly of having the memoranda before me at the time I answered that letter.

17th. How many days elapsed, after the interview with Dr. Jackson, before you made these memoranda?

Ans. That I cannot tell.

18th. Were these memoranda made after the interview you have spoken of, in the street, near Mr. Putnam's office?

Ans. I think it was made before.

19th. Why do you so think?

Ans. It is so impressed on my mind.

20th. Did you take any other means than of going to the office to find the date of Dr. Jackson's call at your house?

Ans. No, sir.

21st. Did you ask of any members of your household, or of your servant, as to the date?

Ans. No, sir. The letter was written at the office.

22d. What is the incident of the play which you say fixed the date of the interview? How do you know that it was brought out only on one night?

Ans. I don't recollect the name of the play. I don't know but that it was played more than that night; but I don't think it was.

23d. Did you have these memoranda before you when you wrote the letter to the surgeons you have been asked about?

Ans. Yes, sir.

24th. When did you last see these memoranda? What did you do with them?

Ans. I don't think I have seen it since about the time when I wrote that letter. I can't tell what I did with them. I generally tear up things of that kind which I don't consider of any value.

25th. Can you find these memoranda now?

Ans. No, sir. I don't believe that I have them.

26th. Had you kept these memoranda until you wrote the letter, as matter of importance to you?

Ans. I don't know that they were of very great importance to me.

27th. Can you state what was the substance of these memoranda?

Ans. Yes, sir; pretty much what was contained in that letter.

28th. Where had you kept these memoranda before you wrote the letter?

Ans. I could not tell whether it was in my pocket-book, my desk, or where. I think it very likely it was in my desk at the office.

29th. Did you make these memoranda at your house?

Ans. No, sir; at the office.

30th. Had you a desk in your son's office, or an office with your son?

Ans. I have had a desk there ever since the office was taken, ten or twelve years.

31st. Can you state that the memoranda were made more than a week or ten days before your letter was written to the surgeons?

Ans. I believe I have said that I could not fix the date.

32d. Have you ever, before to-day, stated that you made these memoranda?

Ans. I don't know that I have to any one; still I might.

33d. Whether or not the interview at your house, with Dr. Jackson, was before or after your acquaintance with Dr. Morton began?

Ans. I think Dr. Morton was at the office before that interview; but I had not been personally acquainted with him. I am very sure that he had been in the office.

34th. What was that which you said your son told you that he was making some memoranda of?

Ans. I don't know what he was making a memoranda of. He did not tell me. He said I had better make a memorandum of what occurred at the house. It is my impression that he told me, and that that was the reason for my making it. I think my son did not tell me that he was making any memoranda himself; but still he might have, as it was a good while ago, and I did not tax my mind particularly with it. I think my son has memoranda. He told me that he had, the other day, memoranda of the whole transaction.

35th. Whether or not you have had much conversation with your son in relation to etherization, and the matter of the patent?

Ans. There have been conversations, but nothing more than common talk about it. I have read a good deal on the subject, and have got nearly all that has been published in the newspapers, and the different pamphlets, bound up.

36th. Did you know that your son had an interest in the ether patent?

Ans. I knew, at the time, that he had some interest in it, but what it was I don't know that I could state. He soon gave it up back again to Dr. Morton.

37th. Did you know, at this interview with Dr. Jackson, at your house, that your son had an interest in the patent for etherization?

Ans. No, sir; I don't think he had any at that time. I don't know.

38th. If he had not, were negotiations on foot for the purpose of his having an interest?

Ans. I can't tell what was going on between those two. There was not, to my knowledge. I was not in the office at all times when Morton was there.

39th. Did you, at the time of the interview at your house, know of any negotiations going on between your son and Dr. Morton?

Ans. No, sir.

40th. At the time Dr. Jackson came to your house, and inquired for your son, Robert H. Eddy, had application to your son been made for the patent?

Ans. I think there had, by Dr. Morton.

41st. Do you know whether your son had been to the laboratory of Dr. Jackson, in relation to the ether patent, before the time when, as you state, in answer to 5th interrogatory, Dr. Jackson came to your house?

Ans. I think he went up there, and the Doctor was absent. He saw Mrs. Jackson, and not the doctor. He might have gone there a half-dozen times, and I not know it.

42d. Will you please state what Dr. Jackson said when he came to your house, and what was said to him at the interview before referred to?

Ans. I cannot state it without referring to my letter to the surgeons. That states the whole of it.

43d. Who began the conversation touching the ether matter?

Ans. I don't know which mentioned it first. I think I did.

44th. Did Dr. Jackson state that Dr. Morton had entire confidence in his (Dr. Jackson's) knowledge, and that he would implicitly follow his (Dr. Jackson's) directions, or anything to this effect?

Ans. No, sir; not to my recollection.

45th. Before your son came home, on the evening spoken of in your answer to 5th interrogatory, what, if anything, had you said to Dr. Jackson about the patent?

Ans. I don't recollect that I said anything about it.

46th. Did Dr. Jackson, in answer to your question on the matter of the new discovery, say anything of Wells and his experiments?

Ans. I think he did. I think he said that Wells had pretended that he had made some discovery, and that there was a trial of it at the College, I think, and that it had failed.

47th. Did he say anything in relation to an idea of Dr. Morton, when he came for a bag to his laboratory, about affecting the imagination of his nervous patients?

Ans. Yes, he did. I have stated it in my letter.

48th. Will you please state what Dr. Jackson said was Morton's idea of affecting the imagination.

Ans. I think it the same experiment which he said had been made in France, by dropping water on a man whose eyes were bandaged. The man supposed he was bleeding.

49th. Did Dr. Jackson say that he first asked Morton why he did not try what Wells had used.

Ans. No, sir; not to my recollection.

50th. Did Dr. Jackson say anything about nitrous oxide, at this interview?

Ans. No, sir.

51st. Did Dr. Jackson say that he told Morton he had better try something which would have a real effect, instead of using atmospheric air?

Ans. He said he told him that he had better use ether, or something else of that kind, that atmospheric air was not the thing.

52d. Did he say, or give any reason why he said atmospheric air was not the thing?

Ans. I don't recollect that he did. He might have done so.

53d. Will you now please state what you began just now to say, by way of explanation of the last few questions?

Ans. Dr. Jackson said that the experiment had been tried by Dr. Wells, at the college—the Medical College, I suppose he meant—and it was a failure. I think he said Dr. Wells used some gas, it was not sulphuric ether. I think he said it was chloric ether.

54th. Did Dr. Jackson, at this interview at your house, state that he asked Morton why, instead of using atmospheric air to affect the imagination, he did not use nitrous oxide, or "some gas" to produce a real effect?

Ans. I don't think he did; he said ether; that is, as I understood it. Dr. Jackson told him to use ether.

55th. Whether or not, he said "some gas," or spoke of some, before he said that he told Morton to use ether?

Ans. No; I don't recollect that there was anything of that kind.

56th. What is the memorandum which you hold in your hand?

Ans. It is only a memorandum which I have taken off myself to refresh my memory.

57th. Of what is that the memorandum?

Ans. Of the interview with Dr. Jackson on the evening when he was at my house.

58th. Is that the memoranda referred to in your previous answers?

Ans. No, sir. I had no memoranda of my previous answers at the time I gave them.

59th. When and where was the memoranda made to which you have just been looking?

Ans. It was made at my house, last evening, principally extracts from my letter to the surgeons.

60th. Will you please answer the questions now to be put, without any more reference to those memoranda?

Ans. If I can answer them correctly, I will. If not, I will refer to the memoranda.

61st. Can you not answer without referring to your memoranda?

Ans. In many instances I might, perhaps not in all, give the most correct answer.

62d. Is your memory good, reliable and accurate, as to past conversations?

Ans. Pretty good for a man sixty-nine years of age.

63d. You say you asked Dr. Jackson, on the evening at your house, to relate the particulars of the new discovery. Did you pay particular attention to his answers?

Ans. Yes, sir; I think I did.

64th. Was the conversation between Dr. Jackson and yourself alone, or did the ladies present join in it? Who were present besides Dr. Jackson and yourself?

Ans. The ladies did not join in the conversation. The ladies, Mrs. Jackson, Mrs. Bridge, and I think, Miss Bartlett, who were all who were present, besides Dr. Jackson and me, were conversing with themselves. Dr. Jackson and I sat on the opposite side of the room. I don't think they paid any attention to what we said. I have asked Mrs. Bridge since, if she did not remem-

ber what Dr. Jackson said on that evening. She said no; she did not remember anything at all about it.

65th. What is the name of Dr. Jackson's wife's mother?

Ans. Mrs. Bridge, the lady I refer to.

66th. Are you sure that Mrs. Bridge was present at the interview at your house, about which you have testified?

Ans. Yes, sir. Mrs. Bridge and Mrs. Jackson came before the doctor came, to spend the evening.

67th. Are you as sure of this as of any other matter you have testified to, as taking place at this interview?

Ans. I think I am.

68th. Did Dr. Jackson state that he asked Dr. Morton, or said to him anything about Wells' experiments, or about what Wells used?

Ans. No; I don't recollect that he did.

69th. Do you remember that Dr. Jackson stated, that when Morton was going from his laboratory with the bag, he followed him, and took the bag away from him?

Ans. No, sir. He did not state anything of the kind to me.

70th. Did Dr. Jackson state that he told Morton to go to Burnett's?

Ans. No, sir.

71st. Did he not say that his first answer to Morton was "why don't you try something which will have a real effect," or can't you recall the words?

Ans. He did not use the word "real effect." He recommended him to use ether, as I have stated before; that that would put her to sleep, and he could control her. Those are the words, as near as I can recollect; that was the substance of them. If you will permit me to refer to my memoranda, I will give you the exact words. It was that, if he would give her ether, he could get the control of her and could pull her tooth out; that was the substance of it. I don't know that they were his exact words.

72d. What, if anything, did Dr. Jackson say about carelessness, or boldness, or recklessness of Dr. Morton?

Ans. He said he was a reckless fellow for using the sulphuric ether as he did, and he would kill somebody with it yet.

73d. Did he specify any instances of recklessness, or say what talk he had heard about Morton's using it?

Ans. No, sir.

74th. Do you remember that Dr. Jackson said that it was necessary to have an operation—a surgical operation, performed?

Ans. I can't recollect exactly that he did say anything on that point, without referring to my minutes. He might have said it. I have looked at my minutes, and don't find anything of that kind; still, he might have said it.

75th. Did he speak of the need or use of using or trying ether in any operation, at this interview?

Ans. I don't think he did.

76th. Do you not recollect that, when Dr. Jackson came to your house, his wife came with him, on the evening of the conversation testified about by you?

Ans. His wife did not come with him; I am very sure of it. She was there when Dr. Jackson came.

77th. How long was this conversation at your house?

Ans. My son came home at nine o'clock, I think exactly. The Doctor came there a little past eight.

78th. Was there a fire in the room where you had the conversation with Dr. Jackson?

Ans. No, sir: I don't think there was. We don't make a fire in the parlor where we were, until it is quite cold. There might have been some fire in the furnace.

79th. Can you, from your memory, state how Dr. Jackson began his answer to your inquiry, when you asked for the history of the new discovery?

Ans. He said Morton called upon him and wanted to borrow his gas-bags. That is the way he began it.

80th. Did or not, Dr. Jackson say anything to you, in this interview, of the degree or kind of certainty a scientific man required, before publishing a discovery?

Ans. No, sir.

81st. Whether or not the substance of one part of Dr. Jackson's conversation with you was a statement of his own knowledge of the effects of sulphuric ether?

Ans. No, sir. No farther than he said he could put the person to sleep, whom he wished to quiet;—that the effect of the ether would be to put her to sleep.

82d. Did Dr. Jackson say anything about advertisements of Dr. Morton in reference to ether?

Ans. Not to me.

83d. Whether or not it was a matter of considerable consideration with you, before you wrote the letter to the surgeons of the hospital?

Ans. I had thought a good deal of it. My son had told me that there had been a discovery made by which a person's flesh could be cut without giving him pain. I told him I could not believe it, and that led me to make the inquiry of Dr. Jackson. I think I reflected pretty well before I wrote the letter, for I thought it might be made some use of, going into a public institution.

84th. Whether or not you showed your son, R. H. Eddy, the letter, before writing it out from your rough draft, in the shape in which it now appears in print?

Ans. I don't think I did. I have no remembrance of it. I think I told him what I had written afterwards, but not before I had written it. The surgeons' letter was directed to both of us.

85th. Whether or not, in your answer to the fifth interrogatory, you took your published letter and read that ?

Ans. I think I looked at part of it, when an objection was made by Mr. A. Jackson, Jr., to my doing so.

86th. Whether or not, instead of giving your testimony from your memory, you read your letter ?

Ans. I read my letter first, and then gave my testimony, because it was part of the evidence.

87th. Whether or not you said that this letter brought the matter better to your mind than anything else ?

Ans. I might have said so ;—said it refreshed my memory, or something of that kind. I had not read that letter for a long time previously to my reading of it here.

88th. Did you read your letter sentence by sentence, pausing long enough for Mr. Putnam to write what you read ?

Ans. Yes, sir.

89th. What, if anything, have you heard your son say about inducing Dr. Jackson to agree to sign an application for a patent ?

Ans. I don't recollect that I heard him say anything about it. I have not had much conversation with him about it. I was there when Dr. Jackson came to sign the application, but I did not converse with him about it. I generally get up and go out, when anybody comes in to see about a patent.

90th. Do you know, on the part of your son, of any calculations as to pecuniary value of his interest in the patent made in October and November, 1846, or of any between yourself and your son ?

Ans. No, sir.

91st. Whether or not, at the interview at your house, or at about that time your son said that he was afraid that Dr. Jackson would refuse to sign the papers, or back out, before he could get the papers drawn, he found Dr. Jackson so prejudiced against patents ?

Ans. No, sir ; not to my recollection.

92d. You say, in answer to 7th interrogatory, that you have no recollection of any conversation afterwards with Dr. Jackson ;—after the interview at your house, when and where next did you converse with Dr. Jackson ?

Ans. I don't recollect of conversing with him on the subject at all after that.

93d. When and where did you have a conversation with Dr. Jackson about a splendid ether establishment ?

Ans. I never had any such conversation with him. It was with Morton. [I told Morton that he had better let Dr. Jackson have an interest in his patent. I told him I thought Dr. Jackson understood better the manufacturing of ether, and they both together could make money out of it.]

(The part in brackets objected to, as not responsive.)

94th. What did you say to Dr. Jackson about his receiving twenty-five cents for each ether label he signed, if anything?

Ans. Nothing.

95th. What, if anything, do you know of discussions in Dr. Jackson's presence, about European patents?

Ans. I don't know anything.

96th. If you know anything about this, please state it?

Ans. I know nothing about it, except that I think Dr. Morton was at my son's office, to see something about European patents, but I know nothing of what was said. He generally was pretty private. He talked low.

97th. Do you remember an interview at your son's office, when Mr. Hayes came in, in behalf of Dr. Jackson?

Ans. I could not state the conversation. I recollect that Mr. Hayes was once at the office.

98th. Do you recollect of rising and saying, "five per cent. of European patents, for I marked it on a newspaper?"

Ans. It is not in my recollection now. I don't know what it has reference to.

99th. How many times was Mr. Hayes present at your son's office?

Ans. I can't tell. I saw him there once or twice. I don't know that I saw him there more than once. Still he might have been there.

100th. Do you recollect that Dr. Jackson came to the office and said that he intended to appeal to the French Academy?

Ans. No, sir. I have no recollection of any such thing.

101st. Do you remember that there was haste and hurry at the time Dr. Jackson came and signed the application for a patent?

Ans. I don't know that there was any particular hurry about it. I think he sat down and read the application, or the patent. I don't remember that he was in any hurry about it.

102d. When did he read this?

Ans. I don't remember the exact date.

103d. Do you remember anything that took place at your son's office, when Dr. Jackson there signed the application for a patent?

Ans. I could not tell distinctly what was said or done. I saw Dr. Jackson sit down and sign some papers; what they were I don't know. I supposed they were the papers to send on to Washington for the patent. I did not read them.

104th. What do you know of any sending out to Europe by your son to secure patents?

Ans. I know nothing, otherwise than I understood that he had sent out.

105th. Do you know what was the extent of his interest in the European patents?

Ans. No, sir.

106th. Do you remember a time at your son's office, when Dr. Jackson was present, when strong and emphatic language was used by him, by you, and your son?

Ans. No, sir. There is nothing in my recollection now, if there was anything. There might have been.

107th. Was there not an interview of a stormy character?

Ans. It is not within my recollection that there was anything said very stormy, or very violent.

108th. If, as you say, there might have been such an interview, was this before or after the meeting Dr. Jackson in Court street, as you have stated in answer to 7th interrogatory?

Ans. I think it was before. I don't recollect of seeing Dr. Jackson at my son's office more than twice.

109th. Was not Dr. Jackson at your son's office, when you were there several times with Mr. Hayes?

Ans. No, sir. I think Mr. Hayes was with him at the time he signed the papers. I saw him sign, but I won't be positive. I don't recollect any other time.

110th. When was your letter, inquired of in 8th interrogatory, first published;—whether or not in Mr. Bowditch's Report of the Board of Trustees of Massachusetts General Hospital?

Ans. I think it was first published in that report.

111th. Did you know of any claim connected with etherization, of Dr. Smilie's, bought out by your son, Mr. R. H. Eddy?

Ans. No, sir.

112th. Whether or not, in the testimony here given, your memory runs back to the incidents of 1846 themselves, entirely, without reference to any letter or letters of yours on the subject?

Ans. It does not entirely, but principally.

CALEB EDDY.

COMMONWEALTH OF MASSACHUSETTS, }
County of Suffolk. } ss.

We hereby certify that the foregoing is a true copy of the deposition *in perpetuam* of Caleb Eddy, taken before us, upon the petition of William T. G. Morton, under the statutes of this Commonwealth.

GEORGE T. CURTIS,
J. P. PUTNAM.

Two Justices of the Peace, and Counsellors at Law.
BOSTON, December 14, 1852.

Deposition of the distinguished Surgeon, Dr. J. C. Warren.

I, John C. Warren, of Boston, surgeon and physician, of lawful age, being first duly sworn, depose and say, in answer to interrogatories by Richard H. Dana, jr., esq., counsel for Dr. Wm. T. G. Morton.

1st. Are you, and how long have you been, one of the surgeons of the Massachusetts General Hospital?

Ans. I am one of the surgeons of the Massachusetts General Hospital, and have been so about thirty years.

2d. Did you perform the operation at this hospital of October 16, 1846, upon a patient under the effect of ether?

Ans. I performed an operation, at the request of Dr. Morton, at that time, upon a patient who was under the influence of something, I don't know what. I did not know then, and don't know now. Dr. Morton called on me some days before that time, said he had an article, the use of which would prevent pain in surgical operations, and asked me to use it the first opportunity I had. Two or three days after, not having any private operation, I employed it on a patient at the hospital.

The first operation at the Hospital performed by him, Dr. Morton administering ether.

3d. Was this, and how far, a successful operation, as regards the insensibility of the patient?

Ans. As relates to pain, it was perfectly successful. The patient did not complain of pain at that time, nor even state that he had experienced pain, but, during the latter part of the operation, he was sufficiently conscious to speak and move freely.

Observe that these operations were performed on Morton's responsibility, he not even communicating the nature of the agent used.

4th. Was it Dr. Morton's request, that you should use it at the hospital, or that you would use it in a surgical case, irrespective of place?

Ans. It was of a general nature, and, as I understood, referred particularly to my private patient, but not having any private patient to operate on at that moment, I applied it to a patient in the hospital.

5th. What was the operation of October 16, 1846?

Ans. It was an operation on a tumor about three inches long, on the left side of the neck, a dangerous vascular tumor, deeply situated. It was removed in about five minutes.

6th. Before you used it, did you take means, by inquiry, or otherwise, to satisfy yourself of the safety and probable utility of this substance which Dr. Morton proposed to administer?


Ans. I asked Dr. Morton whether the substance he proposed to me to use was certainly safe to the patient, and whether he was sure it would be effectual, as I had been anxious to find something of the kind he proposed, and made repeated trials of articles without any satisfactory effect. He assured me in reply that the substance he proposed to employ was perfectly safe, and thought it would be effectual.

NOTE. This and the subsequent depositions of the Surgeons of the Hospital, clearly show that Dr. Jackson's pretence of having made himself responsible for the operations there, or made any arrangements for them, is false.

7th. Did he refer to any, and what, dental experiments of his own?

Ans. I think he did, but don't recollect the particulars.

8th. Was this operation of October 16, 1846, as far as you know, the first successful experiment of a surgical operation under the effect of an anæsthetic agent?

 Ans. It was the first successful operation I ever witnessed under the effect of an anæsthetic agent, and the first of the kind I have known.


2d operation. 9th. Were you present at the hospital the next day, at the operation performed by Dr. Hayward?

Ans. I was. The patient was mine, but was referred by me to Dr. Hayward. It was my tour of duty at the hospital.


10th. What was this operation, and how successful?

Ans. The operation, I think, was the extirpation of a tumor from the arm, and was perfectly successful.

11th. At the operation, did you or Dr. Hayward know what the agent was that was administered?

 Ans. I did not, and I think he did not.

12th. Please state who administered the agent in these two cases.

 Ans. It was administered by Dr. Morton.

13th. Were you present at the amputation by Dr. Hayward of November 7, 1846? If yea, what was the operation?

3d operation. Ans. The operation alluded to was, I presume, an amputation of the leg. I was present.

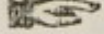
14th. Was this the third experiment at the hospital?

Ans. I believe it was, or an excision of the lower jaw, a painful and protracted operation, in which the patient's sufferings were greatly mitigated. These both took place on the same day—the excision of the jaw by me, and the amputation by Dr. Hayward.


15th. How far was the anæsthetic part of the experiment at the amputation successful?

Ans. It was, I think, perfectly successful.

16th. Who administered the anæsthetic agent and had charge of it during these two operations of the 7th of November?

 Ans. Dr. Morton, as before.

17th. Before the operations of November 7th were performed, was there, or not, a doubt as to whether this agent should be used in those cases? If so, was it founded, or not, on the fact of its being secret or patented, or both?

 Ans. I think there was. We had an objection to using it on the ground that it was a patented discovery, and, after some conversation between Dr. Hayward and myself, we concluded not to use it again, until this matter was explained to us. I presume that the secrecy, also, was one ground.

18th. Did Mr. Morton, before the operation of November 7, send you a letter explanatory of the nature of the agent used?

Ans. He did.

19th. Can you produce and annex that letter?

Ans. I am not aware that I have the letter, though I am confident that such a letter was written. If I am not mistaken, the letter was laid on the table in the surgeons room for others to see, and that, when we came to want, it after two or three days, we could not find it. I feel very confident that the letter disappeared, and that I have not got it.

20th. Was that letter read by you to the surgeons at the hospital, or shown by you to them, and for what purpose, at or before the operations of November 7th? How soon before?

Ans. I think it was shown to them for the purpose of obtaining their opinion as to the expediency of operating again before an explanation of the above-mentioned topics was afforded, but how long before I can't tell exactly.

21st. What was the substance of this letter?

Ans. I am unable to answer this question precisely. I think it contained the explanation which we desired to have, and, at any rate, we were well satisfied with it, and concluded to continue the new article in our operations.

22d. Did it or not, to your recollection, state that the agent was ether?

Ans. I cannot answer decidedly, but I think it did.

23d. Has sulphuric ether, or not, been used at this hospital ever since, and how successfully, in surgical cases?

Ans. It has been used ever since, perhaps with a temporary intermission, when chloroform was first introduced. The latter agent was substituted for a while, but, being discovered to be dangerous, was gradually omitted, and the use of ether restored. The success of ether has been uniformly favorable in this hospital.

24th. Is, or not, chloroform a safe anæsthetic agent?

Ans. We do not consider it safe. Now and then it produces dangerous effects.

25th. Have you used nitrous oxide gas as an anæsthetic agent in your private or hospital practice?

Ans. I have not.

26th. Do you know of its being used successfully?

Ans. No.

27th. Were you present at an operation performed at the Bromfield House, on or about November 21st, 1846, under the effect of ether?

Ans. I was. This was a private operation with ether, and was performed by Dr. J. Mason Warren. There was another at the same place, performed by him, on the 12th of November. This was the first private operation.

28th. Who had charge of the anæsthetic part of these experiments?

Ans. Dr. Morton.

Operation at Brown-field house, Nov. 21st, Dr. Jackson present among spectators, and for the first time.

29th. Were there many spectators present at these experiments at the Bromfield House? Please name some of them.

Ans. There were, I think, ten or twelve gentlemen: Dr. C. T. Jackson, Dr. Reynolds, Dr. J. V. C. Smith, Drs. Flagg, Gould, Shurtleff, Lawrence, Parsons, Briggs, and others. I refer to the operation on the 21st of November. At present, I do not recollect who were present on the 12th of November, if any one.

30th. Did Dr. C. T. Jackson take any other or further part than any other of the gentlemen you have named?

No part taken by Dr. J.

Ans. I do not recollect that he did.

31st. Had you ever known him to be present at a case of administration of ether before this?


Ans. I cannot say certainly, but I have an impression of his having been present at an operation at the hospital.


32d. When was this operation at the hospital, at which you think he was present? Was it either of the first four to which you have testified?

Ans. I am unable to say.

33d. If he was present, did he take any other or further part than the other spectators?

Ans. Not that I recollect.

 34th. Has Dr. C. T. Jackson ever, to your own knowledge, taken any part or share in the administration of ether in a surgical case?

 Ans. I don't remember that he has.



35th. How long did Dr. Morton conduct the inhalation at the hospital?

Ans. As far as I can remember, he attended in four or five operations, but I cannot be precise.


36th. In private practice of your own, or where you attended, how long did Dr. Morton continue to administer the ether?

Ans. Never after the Bromfield operations, so far as I remember.

37th. What course was then taken?


 Ans. After the article was fully understood to be ether, it was employed by the surgeons themselves: first, by various kinds of apparatus; and, finally, by a sponge, which is the practice at the present day, and which I believe I first used.

38th. Did you meet with any case of unsuccessful administration by Dr. Morton?

 Ans. No. The etherizations were more or less perfect in different cases. At first, we were very much puzzled with these variations in the effect of ether, but soon came to understand they were only different degrees of anæsthesia.

39th. Why were the various kinds of apparatus laid aside, and the sponge used instead of it?

Ans. Apparatus was soon discovered to be unnecessary, and other modes of administration were found more convenient.

40th. Do you recollect the case in which you first used the sponge without apparatus?

Ans. I do not.

41st. Please look at your communication to the Surgical Journal of December 9th, 1846, page 378, the following passage: "The breathing of the etherial vapor appears to operate directly on the cerebral system, and the consequent insensibility is proportionate to the degree of cerebral affection." What is your present experience and opinion on that point?

Ans. These theoretical points have been discussed very largely, but not fully settled. I think the present opinion is in favor of insensibility, being produced by an unoxgenated state of the blood, produced by the anæsthetic agent, either directly or indirectly. So far as I could give an answer to the question, without more reflection, it would be in support of what I have there stated.

42d. Do you recollect a conversation between yourself, Dr. Gould, and Dr. C. T. Jackson, respecting this discovery, about the time of the operations of November 7th? When was this?

Ans. I recollect it perfectly well; it took place at a meeting of the Thursday Evening Club at my house, about the time of the introduction of ether as an anæsthetic. Dr. Gould and myself were engaged in conversation on the subject of the recent surgical operations for anæsthesia. While we were conversing, Dr. Jackson approached, on which Dr. Gould said, "There is Dr. Jackson; he knows more about it than I do." Whereon, I turned to Dr. Jackson, and asked him what he knew about the use of ether as an anæsthetic. "Oh," said he, "I was the person who suggested the use of it to Morton;" and he added, either then or afterwards, "I advised him to go to you and get you to do some surgical operations with it, otherwise he might kill somebody, and then he would have the whole responsibility," or words to that effect. This is all I recollect of that conversation.

Dr. Jackson, Nov. 7th, tells Dr. Warren that he, Jackson, was the person who suggested to Morton the use of ether. See particularly as to "responsibility," which Jackson now claims was wholly his.

43d. By "afterwards," do you mean the same evening or a future time?

Ans. A future time. I could not say whether it was that evening or subsequently.

44th. Was this or not the first communication you had had with Dr. C. T. Jackson on the subject of ether or any anæsthetic agent?

Ans. It was the first.

45th. Do you recollect how many surgical operations had been performed at this time?

Ans. I cannot tell without reference dates; it would be easy to determine.

46th. Did you at this time know that the agent was ether?

Ans. I am unable to answer that question.

No communication from Jackson before this casual remark.

47th. How long, and how intimately, have you known Dr. C. T. Jackson?

Ans. I have known Dr. Jackson many years—perhaps twenty.

Witness' I have been in the habit of seeing him occasionally, and meeting
associations him in the various societies.
with Dr. J.

48th. What was the object of this club? Is it or not called the "Warren Club," after yourself? How often did it meet?

Ans. It was a club intended to promote scientific and social pursuits. It was originally called the "Warren Club," but I requested that the name should be omitted in the notifications, and now it is called the "Thursday Evening Club." It meets once a fortnight, and has usually done so.

49th. How long have you known Dr. W. T. G. Morton? What have been your relations with him?

Ans. I knew Dr. Morton a year or two before the discovery of ether as an anæsthetic. I had seen him, perhaps, two or three times before that event. My relations with him have been no other than that of a general acquaintance.

None with
T. M. D.

50th. Did he attend your surgical lectures in 1844?

Ans. Very possibly he did, but I cannot state it as a fact.

51st. Before this conversation with Dr. Gould and Dr. Jackson, to which you have referred, had you any suspicion that Dr. Jackson had any part in this discovery, or any particular interest in it? (Objected to, as inquiring of the suspicion of witness.)

Ans. I had not.

Dr. Warren had never connected Dr. Jackson's name with the discovery till Nov. 7th; after it was fully established in public opinion.

52d. Before this conversation with Dr. Gould at your house, to which you have referred, had you or not, in any way, associated Dr. Jackson's name with this discovery or these experiments?

Ans. Not that I recollect.

53d. Did Dr. Jackson ever, at any time, request you to perform any surgical experiment or experiments, in connexion with any anæsthetic agent?

Ans. He did after that period; he wrote me a letter requesting me to perform some experiments at the hospital. I have looked for that letter, but cannot find it.

54th. Are you sure, and how are you sure, that he wrote you any such letter?

Ans. I recollect perfectly his writing a letter of that description. My recollection of the substance of that letter is not clear; but I am clear that he did write such a letter. I was rendered more certain of my having received such a letter by conversation with Dr. Gould in the winter or spring of 1852, when we were called upon by a committee of Congress to give evidence in relation to the ether subject generally. I will state further, that the recollection of it was brought to my mind by Dr. Gould at that time.

55th. Please to state the substance of your conversation with Dr. Gould in 1852 on the subject of this letter from Dr. Jackson to you.

Ans. I received two applications from Congress—one from the chairman of a committee of Congress, and, at a subsequent period, another from the honorable Mr. Stanly, a member of that committee. There was a distance of two or three months between these applications. I am not able to state at this moment on which of these applications I was led to converse with Dr. Gould. Having these applications from Congress, and having previously dismissed the subject of the controversy from my mind for two or three years, I was at first at a loss what answers to give, and was apprehensive I might make some mistake from want of recollection on the subject. Knowing that Dr. Gould was well acquainted with the subject, I thought we might mutually aid each other in reviving the recollection of important facts. I recollect distinctly that there was a conversation between Dr. Gould and myself at that time on the subject of the letter. I asked him whether he recollected such a letter. He said he did know that such a letter was written. I then became satisfied in my own mind that I was right in believing in the existence of such a letter, although I had previously some uncertainty. The object of the letter, as I recollect, was to invite me to go to the hospital on a certain day and to apply ether.

56th. Did Dr. Jackson, in this letter, express any dissatisfaction with the previous experiments at the hospital, performed under Dr. Morton's superintendence?

Ans. I have an obscure recollection that he did, but cannot positively aver it.

57th. What was the particular purpose or object of the application of the ether in this case?

Ans. I don't recollect that there was any particular object in that case.

58th. Did you comply with the request?

Ans. I went to the hospital about that time, and attended the administration of ether, but not particularly on account of the letter. It was my duty to go there about that time.

59th. Was Dr. Jackson, or any one in his behalf, present at or about this time? Did anything occur different from the usual previous experiments?

Ans. Dr. Jackson was, I think, present about that time, but whether anything particular occurred, I do not remember.

60th. If present, did he take any charge or superintendence of, or give any direction concerning the ether?

Ans. None that I remember.

61st. Was it then administered by the surgeons themselves, or was Dr. Morton still employed?


Ans. I cannot tell how it was at that time.


62d. Did you ever know Dr. Jackson to be present more than at this time at the hospital? and then was he more than once present?


Ans. I cannot answer that question certainly, but my recollection is that he was more than once present. I should say twice, but I state this with some hesitation. I have a perfect recollection of his being there, but how often I know not.


63d. Did he ever make to you any other request about an experiment at the hospital, except by this letter?

Ans. I think not.

 64th. About what time did you receive this letter from Dr. Jackson? How long after the conversation at your house with him and Dr. Gould?

 Ans. I can say it was within a month after the first administration of ether, but exactly the time I cannot indicate.

 65th. Should you or not have gone on attending these experiments just the same if you had not received it?

 Ans. I should have gone on attending the experiments just the same if I had not received it.

66th. At the time of your conversation with Dr. Gould and Dr. Jackson, to which you have testified, did you say anything to him about his attending himself at the hospital?

Ans. I think I did. I think I said to him he ought to be there, or words to that effect.


67th. What reply did he make?

Ans. I believe he said he could not conveniently be there. He was going out of town, or something of that kind.

68th. Did he in fact attend on this invitation from you?

Ans. He came there afterwards, but whether on the ground of that invitation or not, I cannot say.

69th. What led you to say to him that he ought to be there, and in what connexion was it said.

 Ans. I had confidence in him as a great chemist and scientific man, and I understood at that time that he was acquainted with the subject of ether, and had made some suggestions to Dr. Morton. So far as I remember, it was towards the conclusion of the conversation. I, finding that he was acquainted with, and interested in, the subject, naturally invited him to be present. This question recalls this part of the conversation which I had forgotten when I gave my former answer.

Cross Interrogatories, by A. Jackson, jr., esq., counsel for Dr. Charles T. Jackson.

1st. Have you not, while practising medicine and surgery, had occasion to send your pupils to bleed patients, or to administer remedies prescribed by you?

Ans. In the former part of my life I have so, but not of late years.

2d. In cases where you have thus sent your pupils to administer curative means prescribed by you, did you or not consider yourself responsible for the effect of the remedies, so far as a physician can be held responsible for the effects of his prescriptions.

Ans. Yes, sir.

3d. In case you should have discovered a new means of curing a disease, which means were generally regarded as highly dangerous to life, and so set down in the standard medical authorities, and should direct one of your pupils to administer this means, should you or not be regarded by medical men as the one responsible for the effects of that new means of cure?

(This question objected to. J. P. P.)

Ans. I think I should.

4th. In case the means presented by you should prove directly fatal to the patient, would not you alone be held responsible, provided your directions had been carefully complied with in the administration of the means?

Ans. Yes, sir.

5th. Is it not a fact that physicians' prescriptions are generally administered by other persons than the physician himself; and is it, or not, generally the case that the physician is absent at the time the prescribed medicines are administered by the attendants?

Ans. It is.

6th. Did you, or not, address a note to Dr. Jackson, dated October 28, 1846, asking him to inform you concerning the nature of the agent used at the hospital in Dr. Morton's administration, and asking him to procure the use of the instrument for inhalation of it for the hospital?

Ans. I did.

7th. Whether, or not, this is the note here produced, and a copy of which is annexed to the deposition?

Ans. It is. (This copy is annexed by me, marked A.) J. P. P.

8th. Whether, or not, Dr. Jackson replied to this note on the 28th of October, 1846, or the day after, or within a few days after?

Ans. I have no recollection of any, but dare say that he did make some reply.

9th. Will you be kind enough to look among your papers for his reply, and annex it, or a copy of it, if it can be found.

Ans. I will.

10th. Whether, or not, the free gift of the right to use the ether in surgical operations was subsequent to your writing this note?

Ans. I think it was.

11th. Whether, or not, you remember the words that Dr. Morton used when he first came to you, some days before the first

See ans. to 42d interrogatory that Jackson took no responsibility. See also 6th interrogatory &c., and 17th cross, &c.

operation? Whether he said "*he had got hold*" of a means of preventing pain in surgical operations?

Ans. I don't recollect the precise words.

12th. Did he leave you uninformed at the time as to the origin of this discovery of a means of preventing pain by the agent about to be applied by you?

Ans. Entirely.

13th. Whether, or not, at this interview, he stated that the means had been discovered by himself, or that he did not say he became possessed of the means of preventing pain in surgical operations?

Ans. He did not say how he became possessed of the means of preventing pain in surgical operations.

14th. Whether, or not, Dr. Morton informed you that he had invented an apparatus for the inhalation of a vapor, the effect of which was to produce a state of total insensibility to pain?

Ans. I don't recollect anything about an apparatus; I think it quite possible he might have spoken of one.


15th. When did you first learn that the agent employed by Dr. Morton was nothing but pure sulphuric ether?

Ans. I think it was after the second operation at the hospital.

16th. Did Dr. Morton make any communication to you respecting the nature of the agent used, after, or at the time of the first operation at the hospital, on the same day of the first operation?

Ans. He did not inform me of the nature of the substance employed on the day of the operation, but I think he did a few days after.

17th. Whether, or not, you learned from Dr. C. T. Jackson, at your house, on the Thursday evening before referred to, after your first operation with the anæsthetic agent at the Massachusetts General Hospital, that the substance used for the prevention of pain in that operation was sulphuric ether?

 Ans. I did not; I was entirely ignorant of the nature of the substance employed at that time, but I endeavored to satisfy myself that it was a safe and, probably, an efficacious article.

18th. Was there, or not, some aromatic substance in the fluid used at the first operation, besides that of sulphuric ether?

Ans. There was. I examined the flagon after the first, or some ulterior operation, and could not discover, by the odor, what that substance was; I suspected it to be morphine, and asked whether morphine was dissolved in the fluid.

19th. How soon after the first operation at the hospital was the meeting of the Thursday Evening Club at your house? Whether on Thursday, the 22d of October, the first two operations being on the 16th, Friday, and the 17th, Saturday, of October?

Ans. The meeting of the club was on Tuesday, the 27th day of October; this was the first meeting of the club, and the even-

ing of the week for the regular meeting of the club had not been agreed upon.

20th. Whether you remember that your note of October 28th was written the day after the meeting of the club at your house?

Ans. I should not have recollected it without seeing the note.

21st. Whether, or not, Dr. Jackson informed you, on this evening of October 27th, that he sent Dr. Morton to request you to use the new means of preventing pain in a surgical operation?

Ans. He certainly did say that he advised Dr. Morton to apply to me to perform a surgical operation with his article, but whether it was on that evening or at a subsequent time, I cannot remember.

22d. Whether, or not, on this evening of October 27th, Dr. Jackson, at your house, said, "I wish you would try the ether in a *capital* operation, such as an amputation?" and whether, or not, you said, "there is to be another operation at the hospital, an amputation," and requested Dr. Jackson to come and administer the ether himself, for you did not like to have such a quackish fellow as Morton about the hospital, or words to the same effect?

Ans. I don't recollect that I used language of that description, or that he did either at that time; I don't recollect of anything of this kind being said.

23d. Whether, or not, you have stated that this discovery originated with Dr. Jackson? (Objected to, as not inquired about in direct examination.)

Ans. I don't recollect ever to have used precisely those words; I have said, whenever inquired of, that Dr. Jackson suggested the idea of giving ether as an anæsthetic, and that Dr. Morton first practised it.

24th. Whether, or not, you have stated that Dr. Jackson was the *head* and Dr. Morton the *hand*, in the introduction of this discovery into surgical practice?

(Same objection as last.)

Ans. I have sometimes used those words.

25th. Have you not introduced Dr. Jackson to distinguished gentlemen of science from abroad, as the discoverer of ether in surgical operations?

Ans. I think I have introduced Dr. Jackson to scientific gentlemen from abroad as the person who suggested the use of ether, but exactly the terms which I have employed in such case, I could not state.

26th. Are you, or not, aware that Dr. C. T. Jackson has always, since his first communication with you on the subject of etherization, *claimed the discovery as his own*?

Ans. Yes.

27th. Did you, or not, on the 27th of October, or after that, say to Dr. Jackson, "I am glad to learn that this thing had a

This first communication was on 27th Oct See p. 305.

scientific origin. I wondered how such an ignorant person as Morton got hold of a thing like this;" or words to the same effect?

Ans. I recollect distinctly having used the words contained in the first clause, but not the others; that is, that I was glad to find that the discovery had a scientific origin.

28th. Whether or not you addressed to Dr. Gay a note respecting a sum of money which might be obtained on a combined application of Dr. Jackson and Dr. Morton? Is this the note referred to?

Ans. I did address such a note, and the note shown me is the one referred to.

(A copy of this note is annexed by me marked B. J. P. P.)

29th. Have you, or not, Dr. Jackson's or Dr. Gay's reply to your proposal in this letter? and if so, will you please annex them to this deposition, or a copy of them?

Ans. I am not aware that I have any such reply, but I will search for it, and if found, give a copy of it to be annexed.

(The counsel for Dr. Morton objects to any answer from Dr. Gay being introduced in evidence. J. P. P.)

30th. Was, or not, the application for this money given up in consequence of Dr. Jackson's refusal to allow his name to be associated with that of Dr. Morton, in making a joint application?

Ans. It was.

31st. Has, or not, Dr. Jackson, on all proper occasions, stated and asserted his claims to the honor of the discovery of the effects of ether in preventing pain in surgical operations?

Ans. As far as I know, he has.

32d. Have you, or not, known the fact that Dr. Jackson himself always has regarded the discovery of anæsthesia by ether vapor as exclusively his own?

Ans. I have understood that he has.

33d. In the administration of ether, excluding the two occasions at the Bromfield House, will you please state on what occasions in your private practice, Dr. Morton has, in person, administered the ether?

Ans. I think he did attend once or twice at private operations, but I can't say positively that he did.

34th. Whether or not the reply of Dr. Jackson to your note of October 28th, stated at length the nature of the liquid used at the first two operations at the hospital; and that the substance was pure, rectified, sulphuric ether?

(Objected to, because there is no evidence of a reply. J. P. P.)

Ans. I have no recollection of a reply from Dr. Jackson at that time.

35th. Whether, at the operation at the Bromfield House, on the 21st of November, 1846, Dr. J. Mason Warren administered the ether himself to the patient? Was Williston the patient's name?

Ans. I have no recollection on either of those points.

36th. Whether or not it was your tour of duty in attending at the hospital, when the first amputation was performed? Whether or not this amputation was postponed from Saturday, October 31st, the appointed day, to November 7th?

Ans. My tour of duty extended to the 31st of October, inclusive, and terminated then. If the operation was done November 7th, it was not my tour of duty. I can't answer whether it was postponed.

37th. Whether or not you knew that Dr. Jackson, during the years of 1846 and 1847, was very much engaged with the United States survey, and that in field-work he was necessarily absent much of this time from Boston?

Ans. I recollect that he was absent from Boston, and engaged, as I understood, in a survey directed by the United States government.

38th. Whether or not, at a meeting at Dr. Jackson's laboratory, on the 17th of November, 1846, when Dr. Ware, C. G. Loring, esq., and other gentlemen were present, you expressed your pleasure that etherization had a scientific origin?

Ans. I have no distinct recollection of having at that time made use of the expression quoted, but I did use it at some period or other; when, I cannot recollect.

39th. Whether or not you remember that you then expressed the opinion, that, in the course Dr. Jackson had pursued in relation to the first experiment under the use of ether, in extracting a tooth, he had made himself responsible, if any unpleasant consequences to the patient which had resulted from it?

Objected to.

Ans. No, I don't recollect it.

40th. Whether, or not, on the evening at Dr. Jackson's laboratory, Dr. Jackson stated that he thought that the responsibility of that first operation at the hospital rested upon you and upon himself?

Ans. I think it likely he might have said something of the kind, but I have no distinct recollection of it.

*41st. Will you be kind enough to state the character of Pereira's *Materia Medica*. Whether it is a chemist's or physician's book?

Ans. It is a good many years since I noticed the book. I knew it was regarded as a valuable book at the time of its publication; but exactly its character I don't remember. I should think it was rather a physician's than a chemist's book.

*This question is directed to get rid of the fact that Pereira had printed, in 1839, the suggestion which Dr. Jackson claims to have originated.

42d. Whether or not freedom from acids and alcohol in the ether, and a due admixture of atmospheric air in its exhalation, are the essential conditions of its safety and success when administered?

Ans. They are.

43d. Whether or not, in administering ether from a sponge, there is not a greater likelihood that the patient will receive a due share of atmospheric air, than when inhalers are used?

Ans. There is, I think.

44th. In what, besides this last advantage of the sponge over the inhaler, is any preference for the sponge based?

Ans. The sponge is much more convenient to the surgeon and to the patient.

45th. Whether or not, on the second of January, 1847, or at some time, Dr. Jackson, at your instance, brought two bags full of oxygen to the hospital?

Ans. I have a perfect recollection of Dr. Jackson's bringing the bags of oxygen to the hospital. I think it likely that he might have done it at my request, but cannot positively assert the latter. I cannot expect to recollect circumstances of this nature, at this distance of time, without having had any particular reason to note them when they occurred.

46th. Whether or not you remember that this was done by Dr. Jackson in consequence of the suggestion that etherization produced, or was in itself, partial asphyxia?

Ans. I think that was the fact.

47th. Whether or not the valve admitting atmospheric air, or some one of the valves of the inhalers, used at the hospital, was closed by means of a steel spring, so that a probe was sometimes used to raise it and to keep it open?

Ans. I have no recollection of this circumstance, but think it very likely to be true.

48th. Whether you remember that what is stated in answer to the 42d interrogatory, as said by Dr. Jackson about the "whole responsibility" of some surgical operation under the influence of ether, was said by him at some interview after the meeting of the club at your house on the 27th of October?

Ans. I do not remember. I cannot tell whether it was at that meeting or after.

49th. Will you please state any circumstances of Dr. Jackson's first conversation with you at the meeting at your house of the club?

Ans. On hearing Dr. Jackson's remarks in reply to my question, I was greatly influenced in giving them full credit, by the appearance of total indifference in his manner, whether we did or did not give credence to his statement.

This is a curious commentary on Dr. Jackson's credibility.

50th. Has it not been very frequently observed that, in dental and surgical operations on etherized patients, after total uncon-

consciousness has passed away, there is a period of consciousness while there is no sense of pain?

Ans. Yes, that is now an established fact. At first it was not understood. It was thought, when those appearances of consciousness exhibited themselves, that etherization had partially failed; but, now that the subject is better understood, we, in a great number of cases, try to produce that state of semi-consciousness when the patient appears to be awake and sensitive, and yet experiences no pain.

51st. Whether or not, in etherized patients, the spinal marrow is acted upon by the etherized blood, in the inhalation of ether, and thus insensibility to pain is produced?

Ans. There are different theories on the manner in which insensibility is produced. I think it likely to arise from the brain and spinal marrow being supplied with unoxygenated blood, which does not nourish it, nor support its natural function.

52d. Is not the effect of etherized blood first upon the spinal marrow and medulla oblongata, before the cerebrum is affected?

Ans. I suppose they may be affected simultaneously, the circulation reaching them at about the same period of time; but they may not be affected in the same degree at first.

53d. Whether or not this letter is one addressed by you to Dr. Jackson, of October 21st, 1848; if so will you annex a copy?

Ans. It is. (A copy is annexed, marked C. J. P. P.)

54th. Whether or not letters to you, in reference to the subject of etherization, from Dr. Jackson, if any, may have been lent to those parties, or any of them, who have written pamphlets on the matter of sulphuric ether, or its discovery, and so have been lost?

Ans. I never lent one of Dr. Jackson's letters to any person.

55th. Whether or not any person can be the author of a discovery in the inductive sciences, unless he either originates some new idea, or devises the means of establishing the truth of a conjecture, whether more or less probable, previously brought to view by another person?

Ans. So far as I am able to answer that question, I should reply in the negative.

56th. If there is any other matter within your knowledge, connected with the subject of etherization and its early history, not previously stated, will you please to state the same?

Ans. I don't recollect anything else of sufficient importance to be stated.

Direct resumed by Mr. Dana.

1st. In answer to the 50th cross interrogatory, you say that consciousness sometimes returns before insensibility ceases. Do you mean that a state of intelligent use of reasoning powers exists,

while the patient is totally insensible? Is not the brain more or less affected still?

Ans. The brain is partially affected, but the patient is able to speak and to reason, in some measure, but does not experience pain. The sentiment of pain and the power of reflection in reasoning, are dependent on different parts of the nervous system, of course the affecting of the one does not necessarily involve the affecting of the other. I will mention a case. Two weeks since I removed a tumor from the shoulder of a lady—she was etherized, and for one moment seemed to be in a state of unconsciousness, then awoke, talked very pleasantly during the rest of the operation three or four minutes, and when it was concluded, she had had a delightful visit to her friends, and of course had experienced no pain.

2d. Had she the perfect use of her intellectual powers? Was she in a sane state? Was she fully conscious?

Ans. I would not say she had the perfect use of her intellectual powers, but she talked in a rational way, whether she could have rationally answered a question proposed, I would not aver. I should say she was in a sane state. She was fully conscious to external objects. She saw and heard. This patient was entirely aware of the operation being done at the time. She expressed that distinctly, and that I have witnessed in other cases.

3d. Did you inquire of her afterwards, as to her state of mind?

Ans. I did, and she said she had had a very pleasant visit to her friends. I afterwards asked whether she was conscious of the operation, and she said she was. It was amusing to me to see her, from whom the blood was streaming, smile, and say she had no pain, and yet knew of the operation. Dr. Mason Warren and two others were present.

4th. Have you acquainted yourself with the testimony of witnesses in this case, other than the claimants themselves, tending to show whether or not Dr. Morton was experimenting as to ether as an anæsthetic agent before he saw Dr. Jackson, and as to the extent of Dr. Jackson's knowledge of the anæsthetic powers of ether?

(Objected to as immaterial as to what the witness has acquainted himself with, as to the testimony. J. P. P.)

Ans. I have not acquainted myself with any facts bearing upon the question, beyond what I have already stated. I have always avoided taking a part in the controversy, so far as I was allowed to do so, and never have read any of the documents on the subject, to my recollection.

5th. If you have treated Dr. Jackson as the person who first suggested the use of ether to Dr. Morton, have you or not been governed by faith in his own statements?

Ans. I have been governed by the general statement which he made to me at first, and of which I have given an account.

6th. Have you any other means of knowing what Dr. Jackson did in fact suggest to Dr. Morton, on what, or what his knowledge was at the time, than from Dr. Jackson's statements?

Ans. No other.

7th. Did the patients at the hospital suffer from asphyxia while you used the inhalers?

Ans. Some of the earlier patients at the hospital were asphyxiated to a degree that was alarming; and I think under these inhalers, but am not certain.

8th. Did you use the oxygen gas that Dr. Jackson brought?

Ans. We had no occasion to at the time they were brought. We frequently wished for them afterwards, and would have applied them had they been present.

9th. Did Dr. Jackson, at the interview at your house, claim anything more than you have already stated?

Ans. I can't recollect anything more.

10th. If you had simply seen a tooth extracted without an appearance of pain, should you have inferred with certainty that entire insensibility, as well as unconciousness, would be produced sufficient?

Ans. I think I should.

11th. Do you mean to cover, by the 31st cross-interrogatory, instances prior to his first conversation with you?

Ans. I know of no cases prior to the one which was the subject of our conversation here. I don't mean to apply it to any cases before that time, either one way or the other.

12th. Do you mean to apply your answer to the 32d cross-interrogatory to times prior to the conversation at your house?

Ans. I have no knowledge of anything on the subject prior to the conversation alluded to.

13th. Will you annex a copy of the letter of Dr. Jackson to you, of November 23, 1847?

Ans. I should not feel justified in doing it without the consent of Dr. Jackson or his attorney. If they consent, I have no objection.

JOHN C. WARREN.

The letter referred to in the last answer of this deponent was handed to Dr. Jackson's counsel, who, after consultation with Dr. Jackson, stated that Dr. Jackson was unwilling to have it annexed, because he says that the first four lines of the letter have been so marked out that they cannot be read; and because he is unwilling to have one of his letters to Dr. Warren produced without the production of all his letters to Dr. Warren upon that subject.

J. P. PUTNAM.

Observe this: Why should Dr. Jackson's counsel, after inspecting his letters, refuse to allow it to be produced? And why should Dr. Warren require his consent to produce it if it does not contain evidence against him?

A.

PARK STREET, *October 28.*

DEAR SIR : I had the pleasure to call on you to day to converse on the subject of the gas. I am very anxious to find a mode of mitigating the sufferings of patients under surgical operations. If you can, without impropriety, give me a practical account of the apparatus and the substance employed, or purchase for the hospital this apparatus, it would be a real blessing to humanity, and a favor to your friend and servant,

J. C. WARREN.

The foregoing is a copy of the letter referred to by the deponent, John C. Warren, in his answer to the 7th cross-interrogatory, as annexed and marked A.

J. P. PUTNAM.

—

B.

June 10, 1847.

DEAR SIR : A friend of mine, from London, informs me that a large sum of money might be obtained, on a combined application of Drs. Jackson and Morton; but by either, separately. I could give, at this moment, essential aid to such an application. If Dr. Jackson agrees, I am willing to make the proposal to Dr. Morton, and remain your friend and servant,

J. C. WARREN.

The foregoing is the copy of the letter referred to by the said deponent, in his answer to 28th cross-interrogatory, as annexed and marked B.

J. P. PUTNAM.

—

C.

BOSTON, *October 21, 1848.*

DEAR SIR : In reply to your note of this morning respecting my subscription of ten dollars, for the benefit of Dr. Morton, I beg leave to refer you to the captions of the subscription paper; by which you will perceive that my subscription, like the others, was intended to relieve Dr. Morton from pecuniary embarrassment, and not for any other purpose, so far as I recollect.

I remain yours, with respect,

J. C. WARREN.

Dr. C. T. JACKSON.

The foregoing is the copy of the letter referred to by the said deponent, in his answer to 53d cross-interrogatory, as annexed and marked C.

J. P. PUTNAM.

COMMONWEALTH OF MASSACHUSETTS, }
Suffolk county, } ss:

We hereby certify that the foregoing is a true copy of the deposition *in perpetuam* of John C. Warren, taken before us, upon the petition of William T. G. Morton, under the statutes of this Commonwealth.

GEO. T. CURTIS,
J. P. PUTNAM.

Two Justices of the Peace and Counsellors at Law.
BOSTON, December 16, 1852.

Deposition of Dr. Bigelow, a distinguished surgeon and scientific man.

I, Henry J. Bigelow, of Boston, in the county of Suffolk, and Commonwealth of Massachusetts, physician, of lawful age, being first duly sworn, depose and say, in answer to interrogatories by R. H. Dana, jr., esq., counsel for Dr. William T. G. Morton.

1st. Are you, and how long have you been, a surgeon of the Massachusetts General Hospital?

Ans. I am, and have been for six or seven years.

2d. At what college were you educated? Where did you study your profession?

Ans. I was educated at Harvard University, and studied my profession in Boston and in Europe.

3d. Of what scientific societies are you a member?

Ans. Of the American Academy of Arts and Sciences; the Boston Society for Medical Improvement; an honorary member of the Anatomical Society of Paris; corresponding member of the Biological Society of Paris, and some others.

4th. Are you, and how long have you been, a professor in the Medical College of Harvard University?

Ans. I am professor of Surgery in the Massachusetts Medical College, and have been for the past four years.

5th. How long, and how intimately, have you known Dr. Chas. T. Jackson? How as to Dr. Morton?

Ans. I have known Dr. Jackson ten or more years, not intimately. I have known Dr. Morton since the ether discovery—about six years—not intimately.

Witness's
relation to
the parties

6th. Please to state, in order, your first knowledge of the ether discovery, and the experiments thereupon.

Ans. I think my first knowledge of the ether discovery was at the first operation at the hospital. The ether was then administered by Dr. Morton. The next day there was another operation at the hospital, where the ether was administered by Dr. Morton. At the time of the first experiment, Dr. Morton arrived rather late. Dr. Warren was to operate upon a mass of veins about the ramus of the jaw, or about the jaw-bone. As I remember them, they were of the size of a large horse-chestnut. During the operation, which should not be considered a very painful one, the patient stirred and groaned, as in a more than half unconscious state. When he came to, he said he had felt as if he had been scratched with a hoe. The new method had plainly stupefied him. This was also the general impression among those who witnessed the operation. I was attending to the experiment, and do not remember what remarks were made. The next day a fatty tumor was removed by Dr. Hayward from the shoulder and arm of a woman. The cut was a long one. Dr. Morton had administered to her his preparation, and she was sound asleep. I was here perfectly satisfied that there was no deception; that there was no imagination at work; but that something had set the woman asleep, so that she did not feel the pain. I do not remember what expressions the woman afterwards used to describe her feelings, but this was the conviction which I retained. The next experiments I saw, were at Dr. Morton's rooms, I believe. I became much interested in this matter, and induced Dr. Gould to obtain from Dr. Morton permission to examine the condition of patients who were etherized at Dr. Morton's rooms. I was present at a number of these consecutive experiments, and made a detailed record of the phenomena presented by patients who had teeth extracted. Not far from this time, also, occurred an operation upon a patient of Dr. Dix. When the ether was administered by a person said to be in the employ of Dr. Morton, and to such an extent that the patient was not only insensible during about a half an hour, but came near dying, and I think would have done so, had I not stopped the administration of ether, when I found the pulse, which I happened to be holding, very small. Active measures were taken for the resuscitation of the patient, and, after awhile, the pulse came up. These experiments at Dr. Morton's rooms, and upon Dr. Dix's patient, were all before the amputation at the hospital. I will annex a copy of the record which I made of the experiments at Dr. Morton's rooms, and make it a part of this my answer.

First operation.

Second operation.

Consecutive experiments.

Record annexed.

Amputation Nov. 7th 1846.

(This copy is annexed, marked A,

J. P. P.)

I now come to the amputation of the seventh of November, eighteen hundred and forty-six, performed by Dr. Hayward at the Massachusetts General Hospital. The first operation, the report of

which would be calculated to carry with it to the scientific world at large, unequivocal conviction, however much those who were intimately cognizant of the preceding circumstances might have been convinced by them. I had heard that the amputation was to be performed; that there had been some questions about administering the ether, and that, in connection with this, Dr. Morton had written to Dr. Warren to make a formal statement that ether was the agent employed by him. For, although most of us knew what this agent was, no formal announcement of it had been made. I learned from Dr. Morton and from Dr. Gould that the ether would probably not be administered in this case, and I made an arrangement with Dr. Morton to take him to the hospital just before the hour of the operation, telling him that I would do every thing in my power to induce the surgeons then in service there to use the ether in that operation. I called for him in my chaise, and took him with his inhaler to the hospital. Leaving him in the small room adjoining the apothecary's shop, I sought an interview with the surgeons, whom I found decided not to use the ether, their objection being something connected with the professional etiquette of this community. Such objections lay at that time against both the patent right connected with the ether, and the concealment, in part, of its character. I returned to Dr. Morton, and told him that I should still urge its use, but, at the same time, told him not to be disappointed if I failed. I again returned to my colleagues, whom I found assembled in the operating theatre, and conversing chiefly with Dr. Hayward and Dr. Warren, mentioned, among other things, that this was a question not of professional etiquette, but of humanity. In reply to the objection that the new agent was still secret, I remarked to Dr. Warren that I believed that Dr. Morton had furnished to him a letter announcing what this agent was. Dr. Warren then took from his pocket a letter which, if I remember right, he read in part to the class and to those standing near. This letter was then made a turning point in their decision, and the surgeons interested immediately in the patient now agreed that ether should be administered to her. I went down stairs, brought up Dr. Morton, and the patient was successfully etherized. In pursuance of the intention that this patient was to undergo the operation without ether, one hundred drops of laudanum had been administered to her about an hour before. It is, perhaps, needless to add, that the patient exhibited no indication of pain during the incisions, unless, perhaps, a little muscular effort which she did not afterwards remember. After these earlier experiments, it so happened that, for a time, I administered the ether myself to most of the patients operated upon at the hospital.

Profes-
sional eti-
quette.

7th. As to the experiment at Dr. Morton's room, how did Dr. Morton conduct them as to skill, care and success?

Dr. Morton's mode of administering the ether.

Jackson never present.

(Note. It does not appear that he has ever administered it in a single case.) No allusion to him at the hospital, and no aid derived from his name.

Ans. In a methodical, straight-forward, routine manner, and successfully.

8th. Was Dr. Jackson present at any of these experiments at the hospital which you have detailed?

Ans. Not to my knowledge.

9th. Did you ever know of Dr. Jackson's administering ether to any person, under a dental or surgical operation?

Ans. No.

10th. At the time of the first experiments at the hospital, did you know or believe, or suspect that Dr. Jackson had any connexion with the discovery or use of etherization? (Objected to as matter of opinion.) J. P. P.

Ans. No.

11th. At the conference among the surgeons at the hospital, just before the first amputation under ether, which you have referred to, was any allusion made by any of the surgeons to

Dr. Jackson?

Ans. Not that I remember.

12th. So far as your knowledge is concerned, were any of the experiments at the hospital performed at the request of Dr. Jackson?

Ans. No.

13th. Was it stated, or so far as you know, understood at the time by or among the surgeons, that the experiments were performed, or any of them at Dr. Jackson's request or instigation?

(Objected to as the witness's understanding. J. P. P.)

Ans. Not to my knowledge.

14th. What is your experience as to the value of nitrous oxide as an anæsthetic agent?

Nitrous oxide.


Ans. Administered from a bag of about the size usually employed for its administration under the name of exhilarating gas, I should think it altogether inadequate to produce either a certain insensibility, or one that was available for surgical purposes, except by inducing asphyxia, which is dangerous, and which is no part of proper anæsthesia. It is a gas and must be inhaled by some cavity which contains it. The difficulty in the way of success when nitrous oxide is inhaled from the usual bag, is, that the supply of oxygen which it contains is soon exhausted, while the bag becomes filled with the noxious inhalations of the lungs. In breathing ether, a fresh supply of vapor, well mixed with atmospheric air, is taken into the lungs at every breath, while what is breathed out of the lungs, escapes into the apartment as waste. To give nitrous oxide an equal chance of showing what it can do, a fresh supply should be breathed at each inspiration from a large receptacle; and at each expiration this also should be thrown off as waste, instead of being breathed back into the bag as is usually done. I performed this experiment once by means of valves attached to a tube connected with a very large

metal gas-holder, but the cumbrous character of the arrangement, and some other circumstances, induced me then to abandon it. I should add, that I removed a breast from the woman who was then under its influence, and without her knowledge, but that she exhibited indications of partial asphyxia, which resulted either from the gas, or from the size of the tube from which it was inhaled. The gas-holder in this case consisted of two upright cylinders, side by side, as I remember them, eighteen or twenty inches in diameter, and somewhat less than five feet high.


15th. Is nitrous oxide used at the hospital or elsewhere in surgical cases, to your knowledge?

Ans. No.

16th. From your experience and observation, what is its value as an anæsthetic agent?

Ans. Nothing great. I am not aware that it is ever used. 

17th. Why do you say this? On what do you found your opinion?


Ans. An obvious and insuperable objection to it, is its bulk and the difficulty of its transportation. If it were compact, I do not know of any conclusive evidence that it is a universal and efficient agent. 

18th. Is nitrous oxide ever, to your knowledge, used in obstetric cases? What is its value in such cases?


Ans. It is never used in such cases. I do not think that any body knows that it has any value in such cases.

19th. Can it be kept long on hand, or must it be prepared specially in each case.

Ans. I am not aware that it deteriorates by keeping.

20th. Do you or not consider it an established fact in science that nitrous oxide will safely produce entire insensibility under surgical operations? 

Ans. I do not.

21st. Please to state more fully the circumstances attending the first ether experiment at the hospital. 

Ans. The operation, as I remember it, was for the removal or cure of a mass of tortuous veins, being in the neighborhood of the point where the facial vein crosses the ramus of the jaw, or a little anterior to this. The disease would be, by some surgeons, called varix, yet it is not precisely that disease. The veins seeming to become locally and spontaneously enlarged and rolled together like a bundle of earth worms. The patient was etherized by an inhaler.

22d. Do you usually ask a patient under etherization whether he is now insensible to pain, or do you judge for yourself?

Ans. I judge for myself.

23d. In your experience, does unconsciousness usually or always attend, precede, or follow insensibility, or how otherwise?

Ans. It usually attends it. A partial unconsciousness or intellectual bewilderment usually preceding it.

24th. From your experience, what is your opinion as to the patient's possession of his intellectual faculties during the effect of ether?

Compare this with Dr. Jackson's presence that he was conscious that he had become in-

sensible, and that the insensibility was of a peculiar

kind. See down to 29th, Dr. Jackson's statement to Dr. Gay. See also Dr. Townsend, p. 359.

Ans. He generally loses them during an effect of ether adequate to surgical purposes, and I will add that I should never begin a surgical operation, which approached an average degree of severity, until the patient was intellectually, as well as physically unconscious.

25th. Do you or not know of any case in which a party sufficiently under the effect of ether to be operated upon, had the fair possession of his faculties, so as to observe his own sensations?

Ans. I don't know of any such case, nor do I know of any case where a patient was insensible to the pain of an average surgical operation, while his intellectual faculties were unimpaired at the time.

26th. Suppose a person should privately inhale ether to the extent of unconsciousness, could he judge or infer with any and what certainty, from such observation as he could give to his own sensations, at any stage before or after unconsciousness, that he would be insensible under a surgical operation?

Ans. I do not see how he could make such inference with a certainty which would have any sort of value in the eyes of men of science, under the circumstances described, or, in fact, until the experiment had been tried, unless, indeed, he should perform some surgical operation upon himself.

27th. At what stage of the experiment could he perform such an operation upon himself?

Ans. I can't say.

28th. Do you or not consider it possible for a person to prove total insensibility under etherization by an experiment on himself? If not, why not?

Ans. I do not consider it possible, because physical insensibility to pain is, under such circumstances, usually accompanied by a state of the intellect which impairs the powers both of observation and reasoning, and also because, to the best of my present knowledge, insensibility to the pain of a wound large enough or severe enough to settle this question in a conclusive way, is always attended with great intellectual bewilderment or stupidity, such as would render correct observation or inference impossible.

29th. Do you or not consider it possible to infer insensibility to a surgical operation by inductions from any known properties of ether short of such an actual experiment?

Ans. An inference like that described would have no value with scientific men.

30th. Do you know of any cases where asphyxia was produced

in the hospital? How before, and how since, inhalers were abandoned?

Ans. Not complete asphyxia. Partial asphyxia, varying in degree, is not uncommon. Inhalers were abandoned not many months after the first experiment, and a sponge used in their stead. I am unable to say that there was more asphyxia before inhalers were abandoned than there is now.

31st. Was there any period at which asphyxia at once ceased?

Ans. No.

32d. Has the asphyxia which has occurred any, and what connexion with the use of valves in the apparatus, or of inhalers in any form?

Ans. If a valve should get stiff, and fail to do its duty, so as to shut out air, it would then, and I dare say it has, been the cause of producing partial asphyxia. An inhaler might be made with improper or inefficient valves. The apertures in these valves might be smaller than the aperture in the larynx. In the inhalers used at the hospital, which, as far as I know, were made upon the same model, the valves were properly arranged, and their apertures were large enough to prevent any asphyxia, as far as they were concerned. The experiments have never been made at the hospital, except with inhalers with ample provision made for the introduction of atmospheric air; [but in France the early experiments were made with shut cavities or close bags, into and out of which the patients were made to breathe. Asphyxia was then very common for want of pure air.]

(Objection to the part in brackets; objected to as hearsay.)

J. P. P.

33d. Please read the following statement by Dr. C. T. Jackson. "The cause of asphyxia, so commonly produced in the early administration of ether at the Massachusetts General Hospital, I traced directly to the use of those valved inhalers. In the weakened state of respiratory action, under anæsthetic agents, the valves are not raised in attempts to breathe, and the patient is drowned by the pure ether or chloroform vapor. On the removal of the valve by my directions, asphyxia at once ceased to occur at the hospital, and I had no occasion to employ the oxygen gas to revive the patients, as I was requested to do by one of the eminent surgeons of that institution, for no asphyxia happened after my advice was followed to throw aside the inhalers and use a sponge." What observations have you to make thereupon?

Ans. I should say first, that I don't think there was more asphyxia in the early administration of ether than there is now, and if so, it would be unnecessary to look for its existence to the valved inhalers. As to the second period to the above paragraph, I should say that, if respiration is too weak to raise the valves, the patient would get neither air nor ether, and consequently could not be drowned by the vapor of the latter; or, if

the atmospheric valve were closed alone, I think the ether would hardly evaporate fast enough from the then close cavity to fill the lungs. There was no period at which asphyxia at once ceased to occur at the hospital. I think this alleged asphyxia had little or no connexion with any valves. I don't know that any valves were suppressed, nor that Dr. Jackson suppressed them. The degree of asphyxia which was then, and is still, common enough, was then dependent upon the same causes which sometimes produce it now, and is not very important, except as showing that the patient wants more air. When Dr. Jackson brought oxygen gas to the hospital, it was not used, nor has it been, to my knowledge, anywhere since used in this connexion. A good deal of asphyxia may be produced by keeping a sponge well filled with ether close to the patient's face. This often happens, but I think it is more commonly attributable to the patient's refusing to breathe, or to a spasm about the glottis, or fauces, which not unfrequently happens, together with a forcible closure of the lips. I do not know who requested Dr. Jackson to employ oxygen gas, as stated by him, or that any one requested him to do so. I know of no advice given by Dr. Jackson with respect to throwing aside inhalers and using a sponge.

34th. Did Dr. Jackson ever, to your knowledge, directly or indirectly, superintend or give directions concerning, or make himself in any way responsible for inhalation of ether at the hospital?

Ans. No.

35th. Excepting in the instance of Dr. Jackson's bringing oxygen to the hospital, did he, to your knowledge, do any act connecting himself with the experiments there made?

Ans. Not to my knowledge.

36th. When was it that he brought the oxygen there?

Ans. I believe it was the 2d of January, 1847.

37th. What, in your judgment, is the *gist* of the discovery concerning the anæsthetic effects of ether?

Ans. The discovery that ether vapor is capable, when inhaled, of producing complete insensibility to the most excruciating pain of surgical operations, with perfect certainty, and with safety to the patient.

38th. Before this discovery, had or not the idea been prevalent among scientific men, that some effects more or less valuable in the way of unconsciousness or insensibility might be produced to a greater or less degree, with more or less certainty, by the use of gases or vapors?

Ans. The idea had prevailed.

39th. Was it or not known that stupefaction, and more or less unconsciousness or insensibility, was produced by liquors or drugs, under the effects of which some operations could be performed?

Ans. It was. A man dead drunk may have his leg amputated without feeling it, and recover perfectly.

40th. Was it or not known that ether was an antidote to chlorine gas?

Ans. Such a statement will be found, I believe, in "Pereira's Materia Medica," a work of high reputation.

41st. Did any change take place in surgical operations, to your knowledge, in consequence of any experiments in nitrous oxide gas, and before the experiments in ether, in October, 1846?

Ans. No.

42d. Independent of, and before an actual experiment by a surgical or dental operation, or with some instrument cutting the skin, should you, in the state of science then, consider a suggestion that ether inhaled might produce insensibility to be a discovery?

Ans. No.

43d. Did any controversy arise on the first introduction of etherization? What was done for or against it? What part did Dr. Morton, and to what extent?

Contrast Morton's conduct with Jackson's.

Ans. There was a very great difference of opinion—first, as regards its safety. Many people maintained that it was dangerous. Some eminent surgeons have pertinaciously, and in the most surprising manner, adhered to this opinion to the present day, objecting to its use. At an early period, certain religious grounds were urged against its adoption. Dr. Morton, as far as I know, uniformly and perseveringly urged it upon the medical profession and upon the world.

44th. What part did Dr. Jackson take during this doubtful and controverted state of the discovery, as you have stated?

Ans. I do not know.

45th. Do you know of any public part he took in its favor during the first two or three months?

Ans. No, I remember none.

Cross Interrogatories by A. Jackson, jr., esq., counsel for Dr. Charles T. Jackson.

1st. Will you please state what, before September, 1846, was generally known, accepted and believed in the medical profession as to the medical properties, effects and uses of sulphuric ether?

Ans. Administered internally, it was supposed to possess an anti-spasmodic and calming effect. Breathed in a weak dose, it was supposed to allay the severity of some symptoms. It was stated by Pereira, in his *Materia Medica*, edition 1839, Part I, that "the vapor of ether is inhaled in spasmodic asthma, chronic catarrh and dyspepsia, whooping cough, and to relieve the effects caused by the accidental inhalation of chlorine gas," p. 211. Further statements of Pereira upon this point I will furnish and annex.

(A copy of this statement is annexed by me marked B. J. P. P.)

Breathed in a larger dose, it was known to produce an exhilarating effect, like that produced by nitrous oxide. In a

still larger dose, it was known to have produced, in a few cases, dangerous symptoms and death. The experiments of Sir Benjamin Brodie, who found that it put guinea pigs to sleep and then killed them, led him to doubt its safety. A medical gentleman informed me that he once breathed it for exhilarating purposes, and became insensible. My impression is, that it would not be difficult to find other similar cases.

2d. Will you please state *when* you yourself first knew or saw the statement in Pereira?

Ans. Subsequently to the discovery of ether; the precise period I cannot say. I should say it was certainly some weeks after.

3d. Will you please state at what time the gentleman referred to in answer to 1st cross interrogatory, spoke with you of breathing and becoming insensible?

Ans. Subsequently to the discovery of ether, and not a great while after. I mean the discovery of ether inhalation.

4th. Before September, 1846, whether or not, if any, you had given much attention to the subject of preventing or mitigating pain in surgical operations?

Ans. Every surgeon is desirous of giving his patient as little pain as possible. Farther than this, I had given no special attention to the subject.

5th. You state in answer to 6th interrogatory that your first knowledge of the ether discovery was at the first operation at the hospital: Had you not previously known or heard of the discovery?

Ans. I believe not.

6th. Had you not previously witnessed any painless operations at Dr. Morton's office, under the influence of ether?

Ans. No.

7th. When did you first learn that the agent employed by Dr. Morton was nothing but pure sulphuric ether?

Ans. In the course of a few days after the first experiments at the hospital, and after I had made, in the interval, quite a number of experiments with various agents to discover what he used. In fact, I had time to send to Philadelphia, and to procure there a quantity of oil of wine, with which I experimented before I knew that ether alone was employed. I can't assign the precise time when this was. I should say a week after the first experiment at the hospital.

8th. Will you please state what, and how many experiments, and with what agents your experiments referred to in answer to 7th cross interrogatory were made, and the success or results of them?

Ans. Sulphuric ether, oil of wine, chloric ether, alcohol, cold and warm, I remember. On several different days, administering these preparations by inhalation to Mr. Dalton, then house surgeon at the hospital and others, and using a two-necked glass

bottle, to one orifice of which was attached a large tin tube provided with valves of leather. The length and material of this tube condensed the vapor, and caused, I think, the failure of the experiment when sulphuric ether was employed. The patient was tranquilized and lost inclination to speak or move in some of the experiments; in others he became excited.

9th. Did you conduct these experiments alone, or with whose aid, if the aid of any one, or in connexion with whom, if any one?

Ans. I conducted them alone.

10th. Whether or not Dr. Gay had any connexion with these experiments you made?

Ans. Not that I remember. I knew Dr. Gay well, and might have conversed with him upon the subject. He certainly had nothing to do with conducting the experiments.

11th. What, at the first experiments at the hospital was the agent inhaled called, or how spoken of?

Ans. A compound, I think.

12th. You spoke in answer to 6th interrogatory, of inducing Dr. Gould to obtain from Dr. Morton permission to examine the condition of patients who were etherized at his rooms;—why did you go to Dr. Gould? why induce him?

Ans. Because I did not know Dr. Morton, and I did know Dr. Gould. I also knew him to have relations with Dr. Morton.

13th. What were these relations last referred to?

Ans. My impression is, that Dr. Morton boarded at Dr. Gould's house; also, that they had communicated with each other in relation to ether, and that the inhaler used by Dr. Morton was contrived in part by Dr. Gould.

14th. Can you state how long Dr. Morton had, at the time you inquired of Dr. Gould, boarded at Dr. Gould's, or about how long?

Ans. No.

15th. What was the number of the experiments you witnessed in Dr. Morton's rooms, as referred to in answer to 6th interrogatory?

Ans. At least four, possibly more.

16th. How many have you recorded, or made minutes of?

Ans. The four to which I allude.

17th. Please state fully your position in respect to the ether discovery;—what you have written, published, or done, respecting it?

Ans. I took an early and active interest in it, and did what I could to promote its use. I wrote a paper upon the subject, which happened to be the first detailed statement of the discovery. This was published in the Boston Medical and Surgical Journal, November 18th, 1846, having been previously read in part before the American Academy of Arts and Sciences, on the

3d of said November, and before the Boston Society of Medical Improvement on the 9th of said November. This paper contained an account of the new facts and the effects of ether inhalation, and connected with the discovery the names of Dr. Charles T. Jackson and of Dr. Morton, in stating that they appeared in the patent. The announcement of so startling a discovery incurred some ridicule in the journals of the day. The mention of the patent was a cause of remarks in print, to which, on one occasion, I replied in the same journal soon after, under date of ———. I continued to do what little I was able to promote the use of ether, and have always done so. I was called upon in 1847, by the surgical committee of the American Medical Association, to furnish an account of the method of administration, and the physiological effects of anæsthetic agents, and did so, in an article afterward published in the transactions of that body. Soon after the discovery of ether inhalation, it was evident that the two parties, whose names appeared in the patent, entertained difference of opinion with regard to their respective claims to the discovery. In 1848, I published in the Boston Medical and Surgical Journal, an article, in which I endeavored to discuss impartially the abstract question of discovery, and of claims to discovery, citing various precedents. The part of the article devoted to this subject occupies about a dozen pages, and the application of its conclusions to the ether discovery is confined to a single concluding page. The first part of this article contained, also, some general account of the history and progress of ether inhalation. Having been led to a conclusion, based in a great measure upon precedent, and also upon a consideration of the abstract question, that Dr. Morton was in this case the discoverer, I subsequently addressed a short note to Mr. Winthrop, at Washington, enumerating the principal facts in evidence upon the subject of this discovery. Again, at a still later date, having received from Dr. Morton a copy of some statements furnished by Dr. Charles T. Jackson to the chairman of a committee of Congress, at Washington, which contained an extract from a letter addressed by him to Baron Humboldt, and which I deemed incorrect, I replied to them in a letter, addressed to the Hon. George T. Davis, dated February 5th, 1852, and printed in the report of the committee of the 32d Congress, 1st session, page 67.

18th. Whether or not, you wrote letters, or forwarded pamphlets to Europe, which related to the ether discovery?

Ans. The first article alluded to was sent either by myself or Dr. Jacob Bigelow, to Dr. Boott, of London, and was widely republished in whole or in part. At a subsequent time, while travelling in Europe, I gave to my medical friends some copies of the other articles alluded to. I don't remember to have written a letter to Europe on the subject.

19th. Whether any of the papers referred to by you in answer to the 17th cross interrogatory, were printed in a separate pamphlet, without the other contents of the November number of the Boston Medical and Surgical Journal? If any, what?

Ans. The paper alluded to as a discussion of the question of discovery was so bound up. That is the only one.

20th. Whether many copies of the article referred to in answer to the 18th cross interrogatory were sent to Europe?

Ans. First and last, a dozen or more, as I remember, including those which I gave to my friends as above-mentioned. Among them, a few of them were distributed in Paris by myself; one or two, perhaps, by others; I do not think more.

21st. How soon after the appearance in print of the article published November 18, and referred to in answer to 18th cross interrogatory, were numbers sent to England? About how many? and were any then sent to France?

Ans. I cannot say how soon after they were sent to England; I know of but one which was sent. None were sent to France by myself or any one that I know of. My impression is, that Dr. Fisher sent one to his nephew.

22d. Whether or not the receipt of the article of November 18 in England was the first of the announcement of the ether discovery there?

Ans. I believe it was.

23d. Was that, or information from that article, the first announcement of it in France?

Ans. Here again I give my impression that it introduced the subject to the notice of Velpeau through Dr. Fisher, jr. Velpeau refused to entertain the subject, which escaped notice at that time, and until subsequently revived.

24th. Can you state in what way it was in France subsequently revived?

Ans. I think by news from England of surgical operations there.

25th. Were these surgical operations in England based upon the intelligence the publication above referred to of November 18, carried to England?

Ans. I think they were, for the following reason: Experiments were tried immediately upon its reception there—the first by a dentist to whom Dr. Boott communicated the information. Surgical operations followed this experiment, and Dr. Boott was kind enough to send to me notes which he had received from the leading physicians and surgeons—several of them in reply to his communication to them detailing the more or less successful results of their experiments, and their general impression upon the subject. Among them, I think, are those of Liston, Brodie, Clark, Bell, Chambers, and others. With regard to the dates at which this information was conveyed from place to place at

that time, I have not attached any great importance to it, and am therefore now unable to speak with accuracy.

26th. Whether or not the article of November 18, 1846, was translated into French, and so a report of the new discovery first reached there?

Ans. Never, to my knowledge.

27th. Suppose a new and important scientific discovery, which would have great importance in surgical operations, to be made public in England, and published there in the journals, how soon would it, with the means of frequent transit, get to Paris?

Ans. In the daily prints it would be republished in the course of two or three days; in the scientific journals, (some of them,) within the week probably.

28th. Can you state whose experiments of the French surgeons and scientific gentlemen you are familiar with, as in answer to 25th cross interrogatory you have spoken of those of the English surgeons?

Ans. I cannot state.

29th. What part or share, if any, had you in the preparation, or by way of suggestion and consultation, of the Massachusetts General Hospital report of 1848?

Ans. None, that I remember; nor do I think that I knew anything about it until it was published.

30th. In your early acquaintance with Dr. Morton, did his knowledge about scientific matters—his knowledge or ignorance of the various kinds of ether—come under your observation?

Ans. I think he had not much acquaintance with scientific matters; and of his knowledge of ether, other than sulphuric ether, I know nothing. I don't know how much he knew of sulphuric ether besides the fact that its inhalation would produce insensibility to the pain of surgical operations.

31st. Whether or not you saw the advertisements of Dr. Morton in the newspapers in the fall of 1846, and the winter and spring ensuing?

Ans. I don't remember any such advertisements, though I should have been very likely to see them if there were such. My impression is of something like a circular rather than an advertisement; but of this I have no accurate remembrance.

32d. Whether or not the inhalers used at the Massachusetts General Hospital, as in answer to 30th interrogatory stated, had valves attached to them by springs?

Ans. I remember no springs connected with the valves, which, I think, were hinged with leather, except that one valve out of the three had in some way attached to it, I believe, a slender spiral spring.

33d. Whether or not the leather hinges operated in the manner of springs, to keep the valves shut?

Ans. They might, in part, have done so, yet the valves maintained their place, I think, chiefly by their own weight, and would have fallen open had the instrument been turned upside down.

34th. Will you please describe the inhalers used, as to the different valves—as to the use of each valve.

Ans. The inhaler consisted, as I remember it, of a glass globe, containing a sponge, and provided with two orifices. One of these was intended to open into the air, which would then traverse the globe, carry with it ether vapor, and enter the lungs through the second orifice. Each of these orifices was provided with a valvular contrivance. The former—that communicating with the air—was attached to a sort of stopper, which could be taken in or out at pleasure, and served chiefly to prevent the escape of ether vapor into the apartment when the apparatus was not in use. The other valvular contrivance, attached to the mouth-piece, was of more importance. The air passing from the globe into the lungs raised a valve. Instead, however, of being returned or blown again into the globe, its progress was rather impeded by the closure of this valve, while a side valve in the tube of the mouth-piece now opened and diverted the air of expiration into the apartment. The object of this latter double valve was simply to prevent the same volume of vapor from being twice inspired.

35th. Which valve had the spiral spring attached to it, as stated in answer to 32d cross-interrogatory?

Ans. The atmospheric, or that first described.

36th. Can you give the date, the time when the use of inhaler was abandoned at the hospital?

Ans. No, I cannot; nor do I remember that there was any sudden abandonment of them. They fell into disuse.

37th. At about what time did they begin to fall into disuse?

Ans. I am unable to say. I should think a good many weeks, perhaps some months, after the discovery of ether inhalation.

38th. In answer to 11th cross-interrogatory you have stated that the ether was spoken of as a compound; was it, early in its introduction, called a gas?

Ans. That I can't say.

39th. Did not Dr. Morton so call it a gas?

Ans. That I don't know.

40th. Early in its administration, was there mingled with it some aromatic substance.

Ans. I do not know that there was. I got the notion at the time that something like Cascarilla bark was burned upon the stone of the operating theatre, and that the odor, which was very perceptible, was produced in that way.

41st. Whether or not, the professional etiquette referred to in answer to 6th interrogatory, is embraced in a law of the Massa-

chusetts Medical Society, forbidding any member to use secret remedies?

Ans. Chiefly so. It also applies to the question of patent.

42d. Is it not with your observation that insensibility to pain precedes and follows the unconscious state induced by the inhalation of ether?

Ans. If by unconscious state is meant a profound and utter somnolency, I should say, that such a state of insensibility to pain as that described, was not uncommon while the patient is recovering from such stupor, after a heavy dose of ether, and is yet in a half unconscious and bewildered state. The rule is, that sensibility returns with consciousness and about in proportion to it.

43d. Is it not of very frequent occurrence, in dental operations, to render the patient insensible to pain, and yet not unconscious under influence of ether?

Ans. I should not think it was. The faculties are generally bewildered as insensibility approaches.

44th. Has it not frequently happened that, in surgical operations, under the influence of ether, patients preserve their consciousness while they are insensible to pain?

Ans. It very rarely, if ever occurs, if by consciousness is meant the ability to observe and reason correctly.

45th. Do not persons who have been operated upon suffer more or less pain, after the effect of the ether has passed away?

Ans. Yes.

46tha. Has it not frequently happened that patients on whom operations have been performed under the influence of ethereal inhalation, on recovering the possession of their faculties, their consciousness suffer no pain, and are ignorant that an operation has been performed?

Ans. That is partially true, yet the patient, if the operation has been one of average severity, soon come to a sense of pain as his faculties become clear.

46thb. Is there not a period of time, after unconsciousness has gone, when insensibility to pain continues after an operation in surgery or dentistry?

Ans. I think that the period of time, after complete unconsciousness has gone, and during which there is more or less insensibility to pain, is not characterized by a clear mind. Patients do not then know where they have been, or why they have been dreaming, or where they are. They are often exhilarated or lacrymose, but still they may answer questions with tolerable propriety.

47th. Have you ever inhaled ether yourself, so as to produce unconsciousness?

Ans. Yes, not unfrequently.

48th. Have you known of no cases where a patient, under the influence of ether, had possession of his intellectual faculties?

Ans. Of my own knowledge, no case where the mental faculties were unimpaired, where ether has been given in what may be called a surgical dose; that is, an amount adequate for average surgical purposes. Cases which approach nearer to the circumstances alluded to in the question, and where the faculties, although their mechanism was deranged, were less impaired than by a surgical dose of ether; at any rate, one such case I have alluded to in the first article published by myself on this subject.

49th. Have you known of no case where ether enough had been given, (not perhaps, what would be called a surgical dose,) to produce unconsciousness, where the intellectual faculties were sound and clear, after consciousness returned, and while insensibility to pain continued?

Ans. I remember no such case.

50th. Have you known or seen reports of such cases in medical or other journals?

Ans. I have seen or heard, and cited an allusion to such a case. Of its authenticity I cannot speak. From my own knowledge and experience, I cannot but doubt its authenticity. I alluded to a story of a man who criticised the amputation of his own leg; I do not know from what source it emanated.

51st. Do you remember a report of an early case of an operation by Professor Miller, of Edinburgh, on one "Nanny," (a laborer,) in whom there was a compound fracture of his leg, who, throughout an operation most painful under the circumstances, was wide awake and talking, and yet entirely insensible to pain—an operation that lasted some ten minutes?

Ans. I have no distinct recollection of it. It is certainly contrary to the mass of surgical experience.

52d. Did you know that Bouisson, in his work on etherization, states "that the integrity of the intelligence is preserved, while "the sensibility is paralyzed," in some cases?

Ans. No.

53d. Are you aware that Malgaigne cites a case of a patient who was so master of his ideas, and so entirely self-possessed, and unconscious only to pain, that he encouraged the surgeon by voice and gesture to pursue his operation?

Ans. I do not know the case. Similar examples are not wanting where patients have not been etherized. Again, such conduct would be no proof that the man was master of his ideas.

54th. Have you not read of cases where the patients preserved their intelligence and were yet insensible to pain—such cases where the patient remarked on the performance in its progress?

Ans. I cannot say where, though I must have received the idea which I have previously alluded to from some source.


55th. Suppose a person, under the influence of ether by inhalation to perceive and observe in himself and entire loss of all sensation in all parts of his own body, and consequently to seem to himse

to be supported by nothing, could he not infer in such state that the nerves of sensation were paralyzed?

Ans. He could only infer that the nerves of sensation were paralyzed to a degree that made him seem to himself to be supported by nothing.

56th. If the nerves of sensation of a patient are paralyzed, could a surgical operation be performed without any sense of pain?

Ans. If they are completely paralyzed.


 57th. What, in your opinion, is the essential element in a discovery in the inductive science?

Ans. If there be any one element far more important than the rest, it seems to me to be conclusive proof of the asserted fact.

58th. Who, in your opinion, discovered the composition of water;—Priestly, who performed the experiments, or Watt, who inferred the composition of water from Priestly's experiments?


Ans. I could not say, without looking into the subject, with reference to that point.

59th. Whether or not you have stated, and whether or not you now hold to this opinion, that Dr. Morton's experiments, no matter who suggested them to him, made him the discoverer of etherization?

 Ans. That is my opinion, which is strengthened by consideration of the character of the suggestion said to have been made to him, which was not of a proved fact, but of an unproved supposition; and also strengthened by the subsequent evidence which shows that Morton did not need even that suggestion, such as it was. I refer to the evidence of Metcalf and Wightman.


60th. Did any medical authorities, anterior to September 30th, 1846, teach that the inhalation of sulphuric ether could be attended with safety to such an extent as to produce unconsciousness?

Ans. Not to my knowledge.

 61st. Are you aware that any one before Dr. C. T. Jackson suggested the use of sulphuric ether by inhalation, to prevent pain in surgical operations, if he did make such suggestion?

Ans. A suggestion varies in the degree of its suggestive power. I think Morton got a suggestion from some source upon this point, in July. I have a strong conviction that somebody told me that such a suggestion had been made to Dr. Jackson. I mean to give this last statement the force of an impression, and nothing more.

62d. From what source have you the thought that Morton got a suggestion of the kind referred to in the answer to 61st cross-interrogatory?

 Ans. From the nature of his conversation with Wightman and Metcalf.

63d. In your opinion, does verification constitute discovery?

Ans. As far as it is synonymous with first conclusive proof.

64th. In your opinion, in the case of the ether discovery, where and when was this conclusive proof found?

Ans. When it was ascertained that a man might be pretty severely wounded and cut, with a sure and safe exemption from pain.

65th. Whether or not, in your opinion, then, the conclusive proof was founded in the operations of the surgeons at the Massachusetts General Hospital?

Ans. The proof was upon two points,—first, the certainty, and second, the safety of the effect of ether. The repeated experiments of Morton in drawing teeth and their uniform success, together with the varying severity of this operation, may be considered, I think, as establishing by their collective evidence both these points pretty conclusively. Yet the evidence was certainly more conclusive when a long c it had been made through the skin and the evidence was clinched by the amputation.

66th. Supposing it to be stated that the fact noticed by a gentleman was that persons who had inhaled the vapor of ether had been for a few minutes deprived of all sensibility — Do you hold to the opinion that this is a physiological fact which one could not verify upon himself?

Ans. It would be in the highest degree improbable that he could deliberately verify upon himself the absence of all sensibility. It is possible that he might unintentionally wound himself, in unconsciously throwing about his limbs when nearly etherized, and that then, when he recovered his senses, he should remember nothing of it; but, unless this should happen, it would be very difficult to verify upon himself the fact as described.

67th. In answer to 61st cross-interrogatory, you state that you have a strong conviction that somebody told me that such a suggestion had been made to Dr. Jackson; that you mean to give this the force of an impression; whether or not you can state what date, at what time, the party told you such a suggestion had been made to Dr. Jackson? Whether or not you heard this from Dr. Gould? Whether or not he said he attached no importance to it? Whether or not the party who said he made the suggestion to Dr. Jackson was a Mr. Gallup, an insane man from Brattleboro'?

Ans. It was a considerable time before the discovery of ether inhalation. I did not hear it from Dr. Gould, and I do not remember that he has said to me that he attached no importance to it. My general impression is that the matter was connected with a Dr. Gallup.

68th. The report of the French Academy states as follows: "That the fact observed by Dr. Jackson, was, that individuals exposed during a certain time to the action of etherial vapor had been temporarily deprived of all sensibility; this is the physiological fact; Mr. Jackson verified it upon himself." Do you hold this to be such a physiological fact that one could not verify upon himself?

Ans. If by "all sensibility" is meant all sensibility to pain, I

hold it to be out of range of probability, and, I think, of possibility, except in the accidental way in which I have stated in reply to 66th cross-interrogatory.

(NOTE—This omission of a note is accidental. J. P. P.)

70th. Supposing it, in 1845, to be known or believed by a gentleman that the nerves of sensation were paralyzed after his use of ether by inhalation, and supposing it then to be stated that a surgical operation could be performed without pain upon one while in that state; from what could such inference of the performance of the operation be made without pain, unless from the above stated knowledge?

Ans. I cannot say what additional grounds of inference such a gentleman might have. An inference may be made upon insufficient grounds, but would not in that case be conclusive. For example; if a gentleman believed that the nerves of sensation were paralyzed by his use of ether by inhalation, he could not conclusively infer from it, from his mere belief, that a surgical operation could certainly be performed without pain. This belief would be inadequate for a conclusive inference. If, instead of believing that the nerves of sensation were wholly paralyzed, he actually knew it, the case would be different, but I should wish to be satisfied that he did know such a fact, and perhaps how he knew, before I should concede the validity of such inference upon that ground alone.

71st. Whether or not, in your opinion, scientific minds differ as to the rapidity of their inferences?—and whether or not one mind may find by inference a result from certain facts, where another mind would not see such a result?

Ans. Undoubtedly.

72d. It appears from the letter of Hon. Edward Everett, contained in Hon. Edward Stanly and Hon. Alexander Evans's Congressional report, that, on the day of the meeting of the American Academy of Arts and Sciences, at which you gave an account of some of Dr. Morton's experiments with sulphuric ether in dental surgery, you state that "Dr. Morton had derived his knowledge of the substance used" from Dr. Jackson. Please state the source of this information.

Ans. I incline to think that Mr. Everett has unintentionally overstated the force of what I said at that time, especially as in the same letter, and a few lines after the above extract, Mr. Everett goes on to say, "a full account of this discovery is given in a paper, by Dr. Henry J. Bigelow, in the Boston Medical and Surgical Journal for the 18th of November, 1846. Dr. Bigelow ascribes its first suggestion to Dr. Charles T. Jackson, and its application, under his advice, for the purpose of mitigating pain to Dr. W. T. G. Morton, both of Boston." The true statement is the following, which is extracted from the paper alluded to, and alone bears upon this point. In fact, it was very carefully

worded, at the stipulation and in the presence of both those gentlemen, and, if I remember right, by them. "Without entering into details, I learn that the patent bears the name of Dr. Charles T. Jackson, a distinguished chemist, and of Dr. Morton, a skilful dentist of this city, as inventors, and has been issued to the latter gentleman as proprietor."

I think it very likely that Mr. Everett may associate with me some impressions which he may have received at the time of the reading of this first paper, and of the conversation which naturally took place about it. There was at that time a general impression among the comparatively few interested by the new discovery, that Dr. Charles T. Jackson had made a suggestion which Dr. Morton had acted upon: I myself shared this impression, and I think it very likely, though I can offer no valuable opinion upon this point, that if the whole matter had been allowed to rest as it stood at this very early period, Dr. Jackson would now have more credit for his share in the discovery than is now considered by many persons as justly to belong to him. The rapidly increasing breadth of the claim which he urged led to an investigation of its exact merit, as to its novelty—as to the degree of confirmed knowledge it contained—and as to Morton's need of it.

73d. You stated in answer to 17th cross-interrogatory, that you read a certain paper November 3d, and November 9th, and that this paper "connected with the discovery the names of Dr. Charles T. Jackson and Dr. Morton, in stating that they appeared in the patent." Had any patent been obtained November 3d, or November 9th?

Ans. I intended that statement to apply to the paper as it was prepared for publication. It received some modifications for that purpose, which did not alter its important features. I do not know exactly when the patent was obtained, though it must have been put upon paper before the time of the publication alluded to.

74th. When you read the paper, was the sentence now in it as published then contained in it respecting the patent?

Ans. I do not remember about it, but I think that this sentence was substituted for some more extended remarks upon the details of the discovery. I do not remember exactly about it.

75th. Can you find the original manuscript that you read, so as to produce it?

Ans. No.

76th. Will you give, as far as you are able, the account in the original paper for which, as stated in answer to 74th cross-interrogatory, the patent sentence was substituted?

Ans. I cannot speak with accuracy about it. There was something relating to the electric telegraph, or its discovery, which was then, or had been, a mooted question, and which Dr. Jackson was interested in. He objected to its publication, or desired its

omission. It was a collateral matter, and had no important connexion with the other statements.

77th. Whether or not there have been various theories at the hospital as to the mode in which ether produces its effects when inhaled?

Ans. There was at first, and for sometime, I believe, some difference of opinion. Some of the surgeons thinking that the effect was that of asphyxia. I have held but one opinion on this subject—that it was a state of inebriation. The first paper of November 18th pointed to this theory.

78th. Whether or not, at one time, it was stated and supposed that there was very little difference between hanging, drowning, and etherization?

Ans. That I don't know.

79th. Whether or not, at one time, the theory about complete etherization was that it was nothing but dead drunkenness?

Ans. I have thought so. That has been one opinion.

80th. How is it now understood? What is the present theory at the hospital on this point? Is it that insensibility to pain is produced by an unoxygenated state of the blood, which the ether induces?

Ans. I think not. The present theory is that last spoken of, so far as I know.

81st. Is it not now held and understood at the hospital, that the spinal marrow and medulla oblongata are effected by etherized blood, and that thus insensibility to pain is induced?

Ans. I think not.

82d. What is the character of Pereira's "*Materia Medica*?" Is it a work on chemistry, or surgery, or a hand-book of a practising physician?

Ans. Not a surgical work, but one of standard authority and reference upon the subject of *materia medica*, which includes something of chemistry and some other sciences, and something also of the mode of action and effect of remedies. It is rather the hand-book of a physician than an exclusively chemical or surgical work.

83d. Whether or not you stated to the members of the Academy that Dr. Morton obtained his knowledge of the substance used by him from Dr. C. T. Jackson, and administered it under his advice, and by his directions, in his dental operations, or words to that effect?

Ans. I doubt whether any such explicit statement as that was made.

84th. Whether any statement of such or of any such import was made?

Ans. I have before said that there was a general notion at the time, among those who knew or who thought they knew about it, that Dr. Jackson had suggested the use of ether to Dr. Morton

I shared this supposition, and very likely alluded to it at the time referred to.

85th. Whether or not you remember that, when you read the paper before referred to as read at the American Academy of Arts and Sciences, as stated in answer to 17th cross-interrogatory, you made any oral communication in reference to the new "compound," as it was then called, and to its discoverer?

Ans. There was some subsequent discussion upon the subject, in which I took part.

86th. Will you please look at a letter of Hon. Edward Everett's, published on pages 37 and 38 of Congressional Report of Hon. Edward Stanly and others, 1st session of 32d Congress, in which comes the following extract: "Dr. Bigelow, after describing the dental operation performed by Dr. Morton, under the influence of the newly-discovered 'compound,' (as it was then called,) stated that Dr. Morton had derived his knowledge of the substance used from you." Whether or not this statement of what you said recalls your words to your recollection?

Ans. No.

87th. Whether or not you know that the note appended to the address of Hon. Edward Everett, on page 15, in which comes the extract by you recited in answer to 72d cross-interrogatory, beginning, "Dr. Bigelow ascribes its first suggestion to Dr. Charles T. Jackson," &c., was written by him from his recollection of what you stated, and not from what was printed in your article of November 18th, 1846, in the Boston Medical and Surgical Journal, and that he referred to the article, having learned from you that it was to be published in that journal on the 18th November?

Ans. Having no means of knowing, I infer that Mr. Everett spoke from his general impressions, received at the time of the discussion at the Academy, and that he took the date of the publication of the substance of that discussion, or what he very justly supposed to be so, from the journal in which it was published, after its publication. It seems to me that he could not have referred to the article where it alludes to the particular point of discovery, because the only statement there is the following: "Without entering into details, I learn that the patent bears the name of Charles T. Jackson, a distinguished chemist, and of Dr. Morton, a skilful dentist, of this city, as inventors, and has been issued to the latter gentleman, as proprietor." Nor do I remember to have had any communication with Mr. Everett, between the writing and the publishing of this paragraph, which might have led him to suppose that it would be published.

88th. Will you please look at the date of Hon. Edward Everett's letter of November 12th, 1846, on page 4 of his address, and state whether or not that and his statement there, that he transmits with this note a copy of the address, affects your opin-

ion on this point, and tends to show that he could not have seen the Boston Medical and Surgical Journal of November 18, 1846, at that time?

Ans. I read that now for the first time, and from the fact that the date of this letter is November 12th, and that the date of my publication is November 18th, I infer that the note was added after the printing of Mr. Everett's remarks, and perhaps to the proof-sheets, but I know nothing about it.

89th. Whether or not, shortly after the announcement of the ether discovery to the world, you stated that the idea of the discovery unquestionably came from Dr. Jackson's laboratory?

Ans. I do not at all remember, but there was a time when I thought so, if by this is meant that the suggestion was made by Dr. Jackson.

90th. Whether or not you remember that you stated at Newburyport, in the railroad depot, to some medical gentlemen there, that the idea of the new discovery unquestionably originated in Dr. Jackson's laboratory—and this at a time shortly after the ether discovery was known to the world?

Ans. I have no recollection of it, I dare say.

91st. Whether or not, on December 9th, 1846, in your reply to Dr. Flagg, published at that date in the Boston Daily Advertiser, you use the following language: "When Dr. Flagg refuses to allow to Drs. Jackson and Morton any right to their discovery, I am ready to show what I consider their right to be,"? &c.

Ans. Yes; that is the sense of the paragraph from which it is extracted.

92d. Do you recollect that you approached to Dr. Jackson as he entered the room at the meeting of the American Academy, on or about the 11th of November, 1846, and told him that you read a paper touching the new discovery while he was gone, and had not mentioned his name in the paper, and that you wished to see Dr. Jackson before you published it, because you wanted to get all the particulars—all the facts from him—or something of this import?

Ans. No.

93d. Whether you called on Dr. Jackson, subsequently to November 11th, to ask him to call at Dr. Gould's? Can you state what word you left at his house to come, or the purport of them?

Ans. I did so call, but cannot state the words. I called more than once, hoping to see him. Failing to find him, I left word, as near as I remember, requesting him to come to Dr. Gould's on Sunday evening. I think, also, that this paper was to be finally looked over, with reference to publication. My impression now is, also, that the meeting was arranged in a great measure for the purpose of having him present.

94th. By whom at Dr. Gould's was this arranged, to have Dr. Jackson present?

Ans. There again I give my impression that I saw Mrs. Jackson at the door. Dr. Gould was to be present at the meeting; Dr. Morton, I think; Mr. Eddy was there by accident. I think the arrangement was between myself, Dr. Morton and Dr. Gould.

95th. Did he come? Who were present when he came? What were those present engaged in?

Ans. He came. Dr. Morton, Dr. Gould and Mr. Eddy were present with myself. Those present were engaged in talking. The paper which was to be published was lying on the table.

96th. In manuscript or in proof-sheets was the paper?

Ans. In manuscript.

97th. What was said to Dr. Jackson, and by whom, and what was his reply?

Ans. Something to the effect of the inquiry, as to "what was the matter; there is no occasion for all this?" I think by Dr. Gould. I don't remember what Dr. Jackson's reply was.

98th. How long was Dr. Jackson present? Did he sit down?

Ans. Whether he sat down, I cannot say. He was present for some time. There was no haste or hurry on the part of anybody. When the matter was finished, we broke up.

99th. Was Dr. Jackson asked to read the article in question?

Ans. He was asked to look at it; I dare say, to read it; perhaps, to hear it read.

100th. Did Dr. Jackson, after reading it, or hearing it read, say that it was unjust to him, or words of this import?

Ans. I don't remember. He must have objected to something, because it was altered to suit him, that being one great object of the meeting.

101st. How long was it after you left word at Dr. Jackson's house before he came to Dr. Gould's?

Ans. I believe it was Sunday when I last called there, and he came in the evening of that day.

102d. Whether or not Dr. Jackson said that the article was unjust to him, because it did not distinctly state that the discovery originated with him, or words to that effect?

Ans. Not that I remember.

103d. Whether or not Dr. Gould said to Dr. Jackson, "I am glad to see you and Dr. Morton face to face. I've no doubt but that, if you state fully your claims, Morton will fully admit them?"

Ans. I don't remember it. He might have said it.

104th. Whether or not Dr. Jackson did, then and there, state, point by point, his claims—that he first discovered that breathing of ether vapor would produce insensibility; that he communicated this to Morton, and suggested him to employ it in the extraction of teeth, to both of which Morton assented?

Ans. I have no recollection of it.

105th. Did not Dr. Jackson state there that he sent Dr. Morton to the hospital to ask Dr. Warren to use ether to test it in surgery, or something to this effect?

Ans. I have no recollection of it.

106th. Was anything said by you, or any one then present, that Dr. Jackson then claimed that Morton was nothing but a tool, or something to that effect?

Ans. I don't remember it.

107th. Whether or not Mr. Eddy wrote or prepared any part of the article in question?

Ans. No; unless it may have been the four lines which include the names of Dr. Jackson and Dr. Morton. He may have arranged those. They were the subject of some discussion; but I don't remember that he did.

108th. Was anything said by Mr. Eddy, or any one then present, about writing or publishing what he pleased, whether Dr. Jackson objected or not?

Ans. I don't remember it.

109th. Whether Dr. Jackson left the room or house, the others remaining there, or not?

Ans. That I don't remember.

110th. At the time Dr. Jackson brought the oxygen to the hospital, (2d January, 1847, I think it has been stated, was the time,) did you have any part in the operation? Did you not operate on the knee of the patient?

Ans. I don't remember that I did. It could be easily settled by referring to the hospital records.

111th. Whether or not you then saw Dr. Jackson in conversation with the person who administered the ether? Did not the person who administered the ether put a probe into the valve of the inhaler, after Dr. Jackson's remarks to him?

Ans. I have no recollection of any thing of the sort. It might have happened without my seeing it.

112th. Whether or not you then heard Dr. Jackson, in conversation, state his opinion as to the superiority of a sponge over an inhaler?

Ans. No.

113th. In answer to 1st cross-interrogatory, you say a medical gentleman told me he breathed ether for exhilarating purposes, and became insensible; whether, or not, you meant unconscious?

Ans. Yes.

114th. In answer to 39th interrogatory, you state that a man dead drunk may have his leg amputated without feeling it, and recover perfectly. Has such a course of proceeding with patients been pursued by surgeons? Is this course worthy of science? and of entering into the art of rational surgery?

Ans. It might be a desirable thing to do in some cases, were there no ether inhalation. I am not aware that the process has ever been intentionally adopted.

115th. In answer to 43d interrogatory, you speak of Dr. Morton as urging the use of ether on the world, &c. Do you not know that he would not sell rights under his patent to use ether to any of the dentists of Boston?

Ans. I had forgotten, if it was so. I know that his exertions were very great to extend its use. I suppose, if it was so, it was because the Boston dentists were his immediate competitors, and because they knew some things which they would not tell him.

116th. Can you specify what things, and who of the Boston dentists, knew things they would not tell him?

Ans. The principal dentists had, and I believe have, their own formulæ for the manufacture of mineral teeth, also their own processes, which, with their individual skill in their application, is the cause of results of very different degrees of excellence, and the manufacture above alluded to, is no inconsiderable part of their business.

117th. But is it within your knowledge that Morton could not learn these things from the dentists?

Ans. I think they would, and perhaps very properly, have expected a pecuniary equivalent.

118th. Whether or not, when your paper referred to in answer to 72d cross-interrogatory, was first read, while Dr. Jackson was engaged at the copper mines of Maryland, was he away from Boston?

Ans. I don't know where he was. I should now say that at that time it did not occur to me to inquire whether he was so or not.

119th. Whether or not you consider two conditions essential in order to insure safety in inhalation of sulphuric ether: 1st, purity from alcohol and acid; 2d, the due admixture of atmospheric air?

Ans. The first is very desirable—I cannot say that it is essential; but the air is absolutely vital to the safety of the inhalation.

120th. In your paper, published November 18th, were these two points indicated?

Ans. On the 312th page of the Journal alluded to, twelfth line, it is stated that "one aperture admits the air into the interior of the globe, where, charged with vapor, it is drawn through the second into the lungs. The inspired air thus passes through the bottle," &c. It is also stated on the 316th page, that "it has been considered desirable by the interested parties that the character of the agent employed by them should not at this time be announced." Nothing is said about ether in the connexion referred to in the question.

121st. Is the importance of atmospheric air, referred to in the article or pointed out, except as stated in the above extracts?

Ans. No.

122d. If these two points, air and purity of ether, are not cared for, is there not danger that patients will be asphyxiated?

Ans. Certainly, if the admission of air is not provided for.

123d. Can you state what Dr. Warren read to the class, when, as in answer to 7th interrogatory, as there stated, he took from his pocket a letter?

Ans. No.

124th. Whether or not, at the time Morton was in the ante-room at the hospital, referred to by you in answer to 6th interrogatory, Morton, then and there, wrote a letter to the surgeons of the hospital, or any of them, in reference to the article used, or to be used, for inhalation?

Ans. I don't know that he did.

125th. If respiration is too weak to raise the valves of the inhaler, and the patient gets neither air nor ether, would he not then be asphyxiated?

Ans. Yes.

126th. Whether or not you remember any letters or letter of Dr. Jackson's, published in the Boston newspapers, respecting etherization, early after its first announcement?

Ans. It sounds so probable that I cannot say no; but I have no distinct recollection.

127th. Whether or not you had frequent interviews, early after the announcement of the ether discovery, touching the matter, with Mr. R. H. Eddy?

Ans. I should say yes. I cannot say how frequent. I should say rather occasional than frequent.

128th. Whether or not you discussed with him an alleged difference between discovery in scientific, and discovery in a patent law sense?

Ans. Yes, I had some such discussion.

129th. Had you, or not, interviews with Mr. Robert H. Eddy, a patent solicitor of this city, in which were discussed the claims of W. T. G. Morton to the honor of the discovery, on the grounds of his performance of an experiment suggested and devised by Dr. Jackson, and committed to Dr. Morton for performance?

Ans. I talked the subject over with him. As to these points, I cannot say.

130th. Did you, or not, say to Dr. Gould, or others, that this discovery of the inhalation of ether, for the prevention of pain in surgical operations, was a thing one might ride round the world on?

Ans. Yes.

131st. Did you, or not, say that you meant to be the first to publish an account of it?

Ans. I said that somebody must publish a first account of it, and requested him to make arrangements, if practicable, for me to see some of Dr. Morton's experiments in dentistry, when, if Dr. Morton agreed, I would publish an account of them.

132d. Whether or not, in inhaling ether from a sponge, you get a more full supply of atmospheric air than you would from the inhalers, such as were used at the hospital?

Ans. I think it is a simpler, and perhaps surer way; at any rate, it is easier to regulate and to vary the amount of air.

133d. Whether or not you consider that the gentlemen composing the Commission of the French Academy on etherization, as Velpeau, Roux, Flourens, Dumeril, Andral, and others, are men of science?

Ans. Yes.

134th. Do you remember whether, at the operation at the hospital of January 2d, an inhaler was used?

Ans. I do not.

135th. Whether the statement of Dr. Gallup, referred to in answer to 61st and 67th cross-interrogatories, was made to you, so far as you recall the matter of which, as stated, you have an impression merely, after the discovery of etherization had been proclaimed to the world, and when there was much public discussion as to its authorship?

Ans. I should say yes.

136th. When, for the first time, if ever, did you learn from Dr. Morton of any experiments by him alleged to have been made anterior to September, 1846, with sulphuric ether?

Ans. I do not remember; but I did not feel that the account of them was satisfactory, until the evidence of Metcalf and Wightman.

137th. Before a surgical operation on a patient under the influence of ethereal inhalation, supposing an induction to have been made, should you, or not, consider that this induction which led to a statement, accompanied with directions for the inhalation of ether, which directions pointed out the two conditions by means of which inhalation would be attended with safety—first, purity of the ether for alcohol and acids; and, second, the due admixture of atmospheric air, constituted the discovery?

Ans. No, not necessarily. A statement based upon any induction and accompanied with these directions, would constitute a discovery only so far as the assertion conveyed by it was authorized by previous evidence.

138th. Suppose John Roe makes certain experiments from which he neither offers nor deduces an inference or conclusion; but that Thomas Doe, performing the same experiments, draws a certain

inference, and proclaims, as a result, a new truth, is not Thomas Doe the discoverer of this new truth?

Ans. Yes, if the experiments warranted the inference, and he can satisfy other people that they did.

139th. What is meant or referred to by your statement of the increasing breadth of the claim, as stated by you in answer to 72d cross-interrogatory?

Ans. I can only give a general statement of its nature; that, first, Dr. Jackson spoke lightly of the discovery; I refer to the sort of statements which have been subsequently put in evidence by Dr. Gould and Mr. Chandler. He kept entirely aloof from the first experiments, which goes to show that he did not have an adequate idea of the immense magnitude of the discovery, especially as, when it was confirmed, his attitude towards it, and his interest in it, were so very different. I suppose it to be also true that he was at first contented with the pecuniary sum of five hundred dollars for his share in it. All this goes to show what his own feeling was, at first, as to the nature of this claim. I think now, and for some time past, he has conceived himself to be entitled to the whole credit of the discovery, and during the interval, I suppose his views of the amount of his claim to the discovery were gradually expanded.

140th. Are you aware of any new fact stated by Dr. Jackson in any late statement by him of his claim that he did not originally state?

Ans. No; I have not read the recent pamphlets on the subject of this discovery.

141st. And what was meant by your statement of an investigation as stated in answer to 72d cross-interrogatory? Investigation by whom? when?

Ans. By various persons who had become incidentally interested in the discussion of the subject. I refer to no one in particular, but many people had become interested enough to follow the evidence as it turned up.

142d. Is this the circular by you referred to in answer to 31st cross-interrogatory, from which the following extract comes on page 50:—"The Letheon gas thus administered by Dr. Hare, was invented, we understand, by Dr. T. Jackson, of Boston, and the ingredients were disclosed to Mr. Morton, a celebrated dentist of Boston, who procured a patent for the same, and has invented an apparatus for inhalation." (The above extract objected to.)

Ans. No; what I had in my mind was something from Dr. Morton, announcing the discovery, and offering to dispose of it, but I may be wrong about that.

* 143d. Is not this an occurrence not unfrequent in dentistry, that, under the influence of inhaled ether, the perceptive power

remains in the patient, while he is insensible to pain, as for example, the account by James Robinson, of Gower Street, London? "In others a certain degree of power remained; the patient knew what the operator was doing; perceived him, for example, take hold of a tooth and draw it out; felt the grating of the instrument, but still felt no pain?"

Ans. I believe that in some cases the perceptive power remains in part, and modified as described. I don't know that it is common.

144th. What anæsthetic agent, besides sulphuric ether, if any, is and has been in use at the hospital since the ether discovery?

Ans. Chloroform and chloric ether: chloroform for a little while, and chloric ether by two of the surgeons, but not by the others. Chloroform was in use a few weeks after its announcement, and until it was thought to be dangerous. Chloric ether has been used until very recently by two of the six surgeons at the hospital, but not by the others.

Direct resumed by Mr. Dana.

1st. Please refer to your answer to the 51st cross-interrogatory. Should you or not say that the patient's being wide awake and talking was proof, and how far proof, of his having proper command of his intellectual faculties?

Ans. No. A patient may be, in appearance, wide awake and talking, after inhaling ether, and yet not have full command of his intellectual faculties. Such a state commonly results from imperfect etherization, insufficient for surgical purposes.

2d. Please refer to your answers to the 57th and 63d cross-interrogatories. Do you understand that there is any, and if any, what distinction, in scientific or popular use, between the words "verification" and "proof," especially as applied to the subject-matter of this controversy?

Ans. Both verification and proof may convey to the mind the truth of a previous supposition; but, strictly speaking, there is a difference between them. Proof establishes truth and carries with it conviction. Verification may, like proof, establish the truth of a supposition or theory, or it may be used to confirm, by additional experiment or evidence, what has been already established. So that verification is thus, either synonymous with proof, or, in another sense, it confirms it. In the answers referred to, it was stated that he who first verifies a hypothesis, or in other words, who goes through with the first conclusive proof of it, is the discoverer of the new truth, and in that case the word "verification" is used as synonymous with "proof." In mathematical science, astronomy, &c., such proof may lie in the original calculation, which is itself susceptible of rigorous abstract

The great
points on
the ether
discovery.

proof, and which is then subject only to the error of human fallibility; so that, if the subsequent occurrence of a predicted phenomenon, for example, should show that there had been no mistake in previous calculation, such previous calculation would then be ample title to discovery on the part of the person who had announced it to the world in the form of a prediction; especially if he had, in so doing, virtually staked his scientific reputation upon its accuracy. In such a case the merit of verification, or of confirming the calculation by subsequent observation of the predicted phenomenon would be small. But, in many sciences, among which is physiology, nothing can be predicted from previous calculation, nor affirmed, except after actual experiment. In this latter science one experiment does not justify a conclusive inference with regard to another, so that a discoverer must have proved by experiment the special truth to which he lays claim. The great points of the ether discovery were, that ether would affect everybody, and that it was safe; that is: first, the certainty; second, the safety of its effects; to which may be added the completeness of the insensibility. Certainly, the one experiment to which Dr. Jackson lays claim is no proof of either of these points, while the multiplied experiments of Morton, both first proved and verified them. Dr. Jackson's experiment of inhaling ether, to alleviate the irritation of chlorine in the lungs, till he became insensible, was not sufficient ground for the inference that ether would produce complete insensibility to the pain of the severest surgical operations in all cases, and that it would do so with safety. The process of verification in this case was something more than confirming a truth previously established. No truth was so established. New experiments, and many of them, were to be made. Great probable danger was to be encountered, and great responsibility assumed; even to the extent that, had Dr. Morton killed somebody with the new agent—of which Sir Benjamin Brodie, long after, said, that "it had killed Guinea pigs, and that the great question was, whether it was safe"—he would very likely have been indicted for manslaughter, in rashly and ignorantly experimenting with an untried and powerful agent. On the other hand, Dr. Jackson, continuing to occupy his early position of sedulously keeping aloof from the whole course of early experiment, would have been held blameless in the matter. Verification was, in this case, not confirmation of what was previously known, but proof of what was not previously known. It was not only confirmation of a fact of insensibility to the feeling of a chair; but discovery, by new, extended, varied, and, at that time, hazardous experiment, and completed proof of insensibility to the most excruciating pain; that this was sure to be produced in all cases, and that it was safe. This seems to me to be Dr. Morton's ground, even upon

Dr. Jackson's statement that Dr. Morton received the hypothesis from him for verification or for test. Dr. Morton, however, really needed, according to the evidence of Wightman and Metcalf, no such hypothesis at the hands of Dr. Jackson.

3d. Please refer to your answer to the 125th cross-interrogatory. Why would a person be asphyxiated if he received neither ether nor air through the inhaler?

Ans. Because, if he got no air, he would get no oxygen, upon an adequate supply of which life depends.

4th. Please refer to your answer to the 57th cross-interrogatory. Do, or not, the perceptive powers remain, when the power of intelligent reasoning on things presented to the mind, through the senses, is impaired or lost?

Ans. They may, if by perceptive powers is meant the functions of the senses; seeing, hearing, &c.

5th. Please refer to your answer to the 57th cross-interrogatory. Please define your meaning as to conclusive proof being discovery. In what sense do you use "conclusive proof?"

Ans. He gives conclusive proof of a fact or truth who supplies evidence which establishes it beyond doubt. He who first does so in regard to a new fact or truth is its discoverer.

6th. You have been inquired of as to your changes of mind in reference to the claims of Dr. Morton and Dr. Jackson to this discovery. Please state what these changes have been, and how produced, from the first?

Ans. I think I have already said, that, at first, and for some days, I supposed that Dr. Morton was solely concerned in the discovery. I afterwards believed that Dr. Jackson was concerned in it with Dr. Morton. At a subsequent period, upon examining the evidence as it came out, and after looking up the question of precedent, I came to the conclusion that Dr. Morton was entitled to the credit of it.

7th. At the interview at Dr. Gould's, did Dr. Jackson claim to have discovered the full anæsthetic power of ether, as now known, or only to have suggested its probably having some anæsthetic power; or how otherwise?

Ans. I do not remember.

8th. During the first part of the time that you understood Dr. Jackson's claim to be in some way connected with this discovery, did you understand him to claim to have discovered what is now known before the experiments of Dr. Morton, or only to have had the idea that ether might have some valuable anæsthetic power, and so to have suggested to Dr. Morton; or how otherwise?

Ans. I understood Dr. Jackson to have suggested its use; to have told Morton to try it. See Chandler.

9th. Did Dr. Jackson, when you first heard him speak of this,

claim to have made the full discovery before, and to have communicated it as a full discovery to Dr. Morton, or to have made the discovery through Dr. Morton, as his agent, following up an idea he had entertained before; or how otherwise?

Ans. I cannot say.

10th. Take the case previously put to you, of a person inhaling ether as an antidote to chlorine gas, feeling numbness, then passing into unconsciousness, remaining unconscious about one quarter of an hour, then recovering consciousness, feeling a relief of the pain in the throat, not feeling the chair under him, &c.; suppose this to have been the only experiment, please to state whether, or not, he could know whether he had, or had not, been in a state of peril while unconscious?

Ans. No.

11th. Could he, or not, know, or scientifically infer, as a fact, that it would affect other persons, generally, as it did him, on the point of sleep, torpor, or excitability, or of safety?

Ans. He might infer, or suppose, that it would do so, but he could not know it, nor would the inference or supposition have great value until experiment had tested the fact; this is especially true of the points of excitability and safety.

12th. Could he, or not, know, or infer scientifically as a fact, that it would affect him, in all cases, as it seemed to then?

Ans. Not as to safety, nor, perhaps, as to excitability; the inference would have more weight than that implied in the last question, though it would not be perfectly conclusive.

13th. How far, if at all, would such an experiment add to proof then in existence, that ether could be inhaled from a handkerchief to the extent of producing sleep, or intoxication, without serious ill effects?

Ans. As respects the safety of the process, not much.

Cross resumed by Mr. Jackson.

1st. Whether, or not, you remember that, at a meeting of the Boston Society of Medical Improvement, Dr. C. T. Jackson moved for the appointment of a committee of the society to collect and record all the cases, in surgery and otherwise, in which ether had been used, with all the facts therewith connected, and this in the winter of 1846-7?

Ans. No.

2d. Whether, or not, your paper in the Boston Medical and Surgical Journal of November 18th, is printed as read November 9th, before the Boston Society of Medical Improvement, an abstract having been read November 3d, before the American Academy of Arts and Sciences?

Ans. Pretty much. Between the two readings the case of am-

putation occurred, and was added, and, after the last reading, that fact which relates to the question of invention and patent was modified, at the desire of Dr. Morton and of Dr. Jackson; the scientific part was little changed.

3d. Do you not remember that, on the 3d of November, you read, as from this paper, or stated before reading this paper, or after reading it, or in connexion with it, or on the evening on which it was read, that the first suggestion of the use of ether by inhalation, to produce a state of temporary insensibility to pain, came from Dr. C. T. Jackson? and do you not remember that then you ascribed its application, under the advice of Dr. C. T. Jackson, for the purpose of mitigating pain, to Dr. W. T. G. Morton?

Ans. What I remember of the remarks made or read by myself, at this meeting of the Academy, six years ago, is fully stated in another part of this testimony, to which I refer.

4th. If you shall have answered that you do thus remember, will you please state from whom you had this information?

Ans. I answer the same to this interrogatory as to the last.

5th. In answer to 17th cross-interrogatory, you have stated at some length what had been done by you in relation to the ether question, the papers and articles you wrote, &c. Will you please state whether, or not, in your relations to Dr. W. T. G. Morton, there has been any promise, or fee of a pecuniary nature, or by way of gift, or present, or testimonial, or otherwise, from him to you? If any, of any such, or a like character, will you please state this matter fully?

Ans. No promise, or fee of a pecuniary nature. Upon looking back, I find that, some months after the discovery of ether inhalation, I received from Dr. Morton a "Morton's Inhaler." A year or two after, Dr. Morton gave me a pencil-case, of small value, but whether as "fee, or gift, or present, or testimonial, or otherwise," I have not considered, and am unable to state.

HENRY J. BIGELOW.

The following is the copy referred to by me in the deponent's answer to the 6th direct interrogatory, as annexed and marked A.

J. P. PUTNAM.

A.

A boy of 16, of medium statute and strength, was seated in the chair. The first few inhalations occasioned a quick cough, which afterwards subsided; at the end of eight minutes, the head fell back, and the arms dropped, but, owing to some resist-

ance in opening the mouth, the tooth could not be reached before he awoke. He again inhaled for two minutes, and slept three minutes, during which time the tooth, an inferior molar, was extracted. At the moment of extraction, the features assumed an expression of pain, and the hand was raised. Upon coming to himself, he said he had "a first rate dream, very quiet," he said, "and had dreamed of Napoleon—had not the slightest consciousness of pain—the time had seemed long," and he left the chair, feeling no uneasiness of any kind, and evidently in a high state of admiration. The pupils were dilated during the state of unconsciousness, and the pulse rose from 130 to 142.

A girl of sixteen immediately occupied the chair. After coughing a little, she inhaled during three minutes, and fell asleep, when a molar tooth was extracted, after which she continued to slumber tranquilly during three minutes more. At the moment when force was applied, she flinched and frowned, raising her hand to her mouth, but said she had been dreaming a pleasant dream, and knew nothing of the operation.

A stout boy of twelve, at the first inspiration coughed considerably, and required a good deal of encouragement to induce him to go on. At the end of three minutes from the first fair inhalation, the muscles were relaxed and the pupil dilated. During the attempt to force open the mouth, he recovered his consciousness, and again inhaled during two minutes, and in the ensuing one minute two teeth were extracted, the patient seeming somewhat conscious, but, upon actually awakening, he declared "it was the best fun he ever saw," avowed his intention to come there again, and insisted upon having another tooth extracted upon the spot. A splinter which had been left afforded an opportunity of complying with his wish, but the pain proved to be considerable. Pulse at first, 110; during sleep, 96; afterwards, 144; pupils dilated.

The next patient was a healthy-looking, middle-aged woman, who inhaled the vapor for four minutes; in the course of the next two minutes, a back tooth was extracted, and the patient continued smiling in her sleep for three minutes more. Pulse, 120; not affected at the moment of the operation, but smaller during sleep. Upon coming to herself she exclaimed that "it was beautiful—she dreamed of being at home—it seemed as if she had been gone a month."

These cases, which occurred successively in about an hour, at the room of Dr. Morton, are fair examples of the average results produced by the inhalation of the vapor, and will convey an idea of the feelings and expressions of many of the patients subjected to the process.

The following is the copy of the statements of Pereira referred to by me in the deponents answer to the 1st cross interrogatory, as annexed, and marked B. J. P. P.

B.

"When the vapor of ether, sufficiently diluted with atmospheric air, is *inhaled*, it causes irritation about the epiglottis, a sensation of fullness in the head, and a succession of effects analogous to those caused by the protoxide of nitrogen, (vide p. 156,) and persons peculiarly susceptible of the action of the one are also powerfully affected by the other, (Journ. of Science, vol. 4, p. 158.) If the air be too strongly impregnated with ether, stupefaction ensues. In one case this state continued with occasional periods of intermission for more than thirty hours; for many days the pulse was so much lowered that considerable fears were entertained for the safety of the patient, (op. cit.) In another case, an apoplectic condition, which continued for some hours, was produced."

COMMONWEALTH OF MASSACHUSETTS, { ss:
Suffolk county,

We certify that the foregoing is a true copy of the deposition in *perpetuam* of Henry J. Bigelow, taken before us upon the petition of Dr. William T. G. Morton, under the statutes of this Commonwealth.

GEORGE T. CURTIS,
J. P. PUTNAM,

Two Justices of the Peace, and Counsellors at Law.
BOSTON, December 24, 1852.

Dr. Townsend's deposition, (one of the surgeons of the hospital,) to same effect as Dr. Bigelow's, &c.

I, S. D. Townsend of Boston, in the county of Suffolk, and Commonwealth of Massachusetts, physician and surgeon, being first duly sworn, depose and say, in answer to interrogatories by R. H. Dana, jr. esq., counsel for William T. G. Morton.

1st. Are you, and how long have you been, a surgeon of the Massachusetts General Hospital?

Ans. I am, and have been for about thirteen years.

2d. Do you know Dr. C. T. Jackson? How long, and how intimately?

Ans. I do know him. I have known him since he was a student of medicine, and have always lived near him. I have been familiar with him for twenty years.

3d. What is the street and number of your residence? How long have you lived there? Where does Dr. Jackson reside, and where did he in 1846?

Ans. I reside at 18 Somerset street. I have lived there and in the adjoining house twenty-four years. Dr. Jackson boards, I think, in Somerset street, about six houses distance from me on the opposite side of the street. His office was at the same place in eighteen hundred and forty-six. I don't know whether he lived there then. I have no doubt he did.

4th. How long have you known Dr. William T. G. Morton? How intimately?

Ans. I have known Dr. Morton since eighteen hundred and forty-six. My first acquaintance with him commenced when ether was introduced at the hospital. Since then I have had occasional intercourse with him.

5th. Please to state, in order of time, all your knowledge of the first use of ether for anæsthetic purposes?

Ans. The first time I ever saw any ether used, or an unknown preparation, was the sixteenth of October, eighteen hundred and forty-six, at the Massachusetts General Hospital.

It was brought there by Dr. Morton, and used at his request by Dr. Warren, senior, upon a person who was to have a surgical operation upon some part of the face or neck. Dr. Warren stated to the surgeons that Dr. Morton had a preparation by which he could annihilate pain, and render a person insensible during a surgical operation. In preparing this agent, he went into a room under the seats of the operating theatre. I asked, at the time, why he went in there to prepare it, and was told that it was a secret medicine, and he therefore wished to conceal what it was composed of. It was contained in a glass retort, I think, with a mouth-piece in which was inserted a valve, a very imperfect thing. Through this valve the external air was to be admitted to mix with the vapor of the agent in the bottle. Upon smelling this preparation, I found it contained cascarilla bark, mixed with ether. Upon inquiry I found that this bark had been mixed to conceal the other ingredient, which was the active one, the ether. The patient inhaled this preparation and became apparently insensible. Dr. Warren then performed the operation. The patient was asked, after the operation was finished, if he felt any pain. His answer was, that he had a sensation of something scraping him, but that it gave him no pain. The next day, I think, the 17th of October, Dr. George Hayward performed an operation at the hospital, removing a tumor from the arm, in which this agent, ether, was employed, with the same result. I do not recollect whether the ether was used between that and the 6th of November, though it may

have been. On that day I think the leg of Alice Mohan was to be amputated. I think it was upon the day of this operation that we had a consultation whether we should use this agent, being a secret medicine. Dr. Warren then introduced a note of Dr. Morton, or by his permission, disclosed to the surgeons what this medicine was composed of, giving its use to the hospital. It was then decided to perform the operation under its influence. This was the first capital operation, or amputation, which had ever been performed under the influence of ether. The ether has been in constant use at the hospital from that time to the present, as an anæsthetic agent. The sponge was very soon substituted for this apparatus to inhale ether.

6th. Who had charge of the anæsthetic part of these experiments at the hospital?

Ans. Dr. Morton.

7th. Who administered it first when used by the surgeons in private practice?

Ans. Dr. Morton, before the use of the sponge.

8th. Did any one besides Dr. Morton administer it in surgical cases, before the surgeons administered it themselves?

Ans. I don't know of any one.

9th. Why was the sponge substituted for the instruments?

Ans. Because the sponge readily admitted atmospheric air to mix with the vapor of ether, and was not attended with any trouble.

10th. Had there, or not, been asphyxia produced at the hospital in the use of the instruments?

Ans. There had.

11th. How dangerous? How, as compared with the sponge? Was that a reason for their disuse?

Ans. There was danger of death, if atmospheric air was not readily admitted to the patient. Atmospheric air was intended to be introduced always by the instruments, but they were apt to get out of order, and the atmospheric air would not be admitted when they supposed it might be. I don't know much difference between the occurrence of asphyxia under the instruments and under the sponge. The cases occur now under the sponge frequently. That was supposed to be an objection to the apparatus at that time, but the principal reason for its disuse was the greater convenience of the sponge, being able to carry it about. We don't now consider asphyxia dangerous at all—not that produced by the inhaling of ether. I have seen it so many times. They readily get over it by opening the mouth, and other means. The reason I say we don't *now* consider it dangerous, is because it occurs so often, and is always relieved. It is a very common occurrence.

12th. Is asphyxia produced by instruments more dangerous than that produced by the sponge?

Ans. I should think not. I don't know any difference.

13th. By whose advice, if by any one's in particular, was the

substitution made? Was it done gradually, or at once, at the hospital?

Ans. I am not able to tell by whose advice the substitution was made. I cannot recollect. It may be have been one or two persons. My impression is that it was a gradual thing.

14th. Did Dr. Morton ever, to your knowledge, perform an unsuccessful experiment with ether?

Ans. Not to my knowledge.

15th. What, as far as you could observe, was his conduct in the use of ether, as regards care and skill, considering the then state of the art?


Ans. It was very proper and cautious, as far as I recollect. It certainly was not used in such profusion by him as we use it now.

16th. Please state all you have known or seen of Dr. C. T. Jackson in connexion with the ether experiments, or discovery, in order of time.

Ans. The first time I ever heard of his connexion with it, was previously to the amputation of the leg by Dr. Hayward. Previously to the first two experiments I had not heard Dr. Jackson's name mentioned, I am sure. As far as I recollect, it was about a week after the first two cases which I have mentioned, when it was rumored that Dr. Jackson had some connexion with it, that that he was interested with Morton in the patent. That is my impression about it. The first time I ever saw Dr. Jackson at the hospital, at an operation, after the introduction of the use of ether there, was the 2d of January, 1847. On that day I amputated the leg of a female. Dr. Jackson then appeared in the operating room with a bag containing oxygen gas under his arm. He stated to me there, that we should always have oxygen gas prepared and ready in case of accident in the employment of ether, and he feared that some accident would take place in the use of it. I am positive as to this day and this occurrence from examining the records of the hospital, and from my own private record of operations.

Dr. Jackson's first appearance at the hospital.


17th. Was or not this interview of January 2d, 1847, the first time you had seen him in connexion with the use of ether?

 Ans. Yes, it was, and I had been present at all the operations from the commencement to that time.

18th. What was done with the oxygen? Of what use was it?

Ans. No use was made of it. I never knew it to be used. It would supply that portion of the atmospheric air which is wanting in cases of asphyxia, still I never knew it to be used.

19th. Was Dr. Jackson present at any operation with ether at the hospital before January 2d? If he had been, would you or not be likely to know it?

 Ans. He was not present. If he had been I should have been likely to know of it. I am positive on that point. I have been in

the habit of mentioning that circumstance from the time of the first discovery of ether, and therefore it is fixed in my mind. It is not a thing which I recollect now for the first time as having occurred six years ago. I am sure of it.

20th. When you say first heard of Dr. Jackson as connected with the ether, between October 17th and November 7th, was it in any other, and what, connexion than that of the patent?

Ans. It was not. I did not know of it in any other way.

21st. At the first two experiments at the hospital, had anything, and what, occurred to lead you to suppose or suspect that Dr. Jackson had any connexion with the thing? If there had, would you have noticed it? Why?

Ans. Not the least. I did not know that Dr. Jackson had any thing to do with it in the least. I considered Dr. Morton as the only man who had any connexion with it. If anything had occurred I should have noticed it, because it was a very interesting and absorbing subject, and everything connected with it I should have noticed.

22d. Did Dr. Jackson ever claim, in your presence, to be the discoverer of the anæsthetic power of ether? When?

Ans. I don't recollect that he ever did in my presence, not till a long time afterwards, when it was well known that he was a claimant.

23d. To your knowledge, were any experiments performed at the hospital at the request of Dr. Jackson?

Ans. No sir, not to my knowledge.

24th. How as to the best of your information and belief?

Ans. I have no recollection of hearing of any.

25th. What is your experience of nitrous oxide gas as an anæsthetic agent?

Ans. I have had no experience with it as an anæsthetic agent.

26th. Have you ever known it to be used as such? So far as you know, what is its value as an anæsthetic agent?

Ans. I have never known it to be used as such. From my experience in seeing it very frequently inhaled, and inhaling it myself, I should think it was of no value.

27th. Suppose that before any dental or surgical experiment had been performed under the effect of ether, a person had inhaled it as an antidote to chlorine gas, and found that it relieved the pain in his throat, felt giddiness and exhilaration, followed by numbness in the feet and legs, with a swimming or floating sensation, accompanied by an absence of sensation, even of the chair under him, that unconsciousness for about one quarter of an hour followed, on returning to consciousness felt numbness in all the limbs, then sensation had gradually returned, and the pain in the throat with it. Supposing this to have been done in private, and no experiment made with an instrument producing pain, what do you

consider, as to the power of ether and its safety, was then discovered?

See Bigelow, *ante*.
 Ans. I should consider that it proved insensibility to surrounding objects. If I had witnessed that as the first experiment, I should consider it doubtful as to its safety. I don't see that the person could have discovered anything more than that he was insensible to pain in the throat at the time. It did not prove that he was insensible to pain from an injury, because he had none inflicted upon him. I should think he would have doubted the safety of it—been fearful of the result.

28th. Could he or not have inferred that he would not feel a surgical operation?


Ans. If he was investigating that subject to know whether he would annul the pain of a surgical operation, or of extracting a tooth, he would be probably led to it; but if he was taking it to relieve the pain from inhaling a noxious gas, I should not think it probable that he would be led to that inference.


29th. Please explain what you mean by being "led to it." Do you or not mean that he established it as a scientific deduction; or how otherwise?

Ans. I mean that if he had been in pursuit of that object, he would have inferred from its producing insensibility at that time that he would have been insensible to a surgical operation. I do not mean that he would have established it as a scientific induction, unless he had some painful experiment tried upon him—been injured by an instrument or a puncture.

30th. What would have the scientific value of any inference, or guess, or opinion, as to insensibility to a surgical operation from the premises stated in the 27th interrogatory?

Ans. I don't see any, except that he was insensible to his chair. I don't see that anything could be derived from that.

 31st. Could or not the same effects described in the 27th interrogatory, be produced, entirely or substantially, by other vapors, gasses, or drugs, or liquors, which would yet fail under the test of a surgical operation?

 Ans. Certainly; the same state of insensibility could have been produced by many other agents. Opium I have seen taken to the amount of twelve grains before a surgical operation, producing perfect stupor, but not insensible to pain.

32d. Is, or not, "insensibility" a term of degrees, as used in physiological science? Is it confined to that degree of insensibility which was proved in 1846 to be produced by ether?

Ans. It is a term of degrees, as used in physiological science; a part of the body may be insensible to one degree of pain, but not to another. It is not so confined.

33d. If, before the ether discovery, you had seen a statement that a person had become insensible under the effect of ether, no

painful instrument being used, should you have inferred that total insensibility which was proved in 1846?

Ans. I should not, even at this time, unless I had tried the experiment upon him.

34th. Take again, if you please, the case stated in the 27th interrogatory. Could the person have inferred that the ether would operate on persons generally as it did on him, or on himself at all times alike?

Ans. I should not think he could, without repeated experiments.

35th. Could he have known whether he had or had not been in a perilous state during the quarter hour of unconsciousness?

Ans. No, sir, he could not.

36th. Is it or not known that vapors, gasses and drugs generally affect different persons differently as to sleep, or excitability, or unconsciousness, and also as to the safety of administration?

Ans. It certainly is.

37th. From your experience, if a person under the effect of ether, and insensible to a painful surgical operation, should yet be wide awake and talking, and excitable, would it follow that he had the proper use of his reasoning powers, and was in a sane state of mind?

Ans. It would not, for I have often seen a patient talk during a surgical operation under the influence of ether, and in a half an hour afterwards have no recollection of it. It is a very common occurrence. I put no confidence in what a person says to me while under the influence of ether, or for a half an hour afterwards, although to a bystander they appear to be talking rationally, yet they themselves recollect nothing of it. That to me is almost a daily occurrence, or whenever I give ether.

38th. How far do you consider the cerebral affection under ether to be contemporaneous with the insensibility to pain in the nerves of sensation?

Ans. The affection of the brain, the insensibility of the mind, comes on first, before the nerves of sensation are affected. That we know by the patient being unable to answer questions, and yet are not insensible to the knife. The preparation for the operation, or the insensibility to pain, is generally ascertained by lifting the arm. If it drops powerless, we consider them insensible to pain. If the arm is rigid, or rather if there is rigidity of the muscles, we never commence the operation. The restoration to sensibility occurs always before the restoration of the powers of the mind.

39th. If a person is sufficiently conscious to continue to inhale ether from a handkerchief without aid, and note his own sensations, is he sufficiently etherized to bear a surgical operation?

Ans. Decidedly not.

40th. What is your opinion, from your experience, of chloroform as an anæsthetic agent?

Ans. I think it is a dangerous agent, but capable of producing insensibility as readily as ether. The only cases which I have ever seen myself where there was danger from inhaling chloroform, was at the hospital a month since, where two patients, by the inhalation of chloroform, were brought very speedily into a state of asphyxia. One of them died. In these cases, however, chloroform was given in too large a quantity by mistake, mistaking it for chloric ether. Chloroform I consider a dangerous agent, because, where it has been carefully used, there have been no less than thirty deaths from it in Europe and this country. From the use of ether I have heard of no fatal accident.

41st. What is your opinion, from your experience of the last six years, of sulphuric ether as an anæsthetic agent, as to its safety and efficiency?

Ans. I think it is perfectly safe to be given in all cases, to persons of all ages from infancy to old age. I think it is always capable of producing temporary insensibility to any degree of pain, and I never use it without considering it the greatest boon ever conferred upon humanity.

42d. Is there any degree of pain or torture which has yet been found to exceed the anæsthetic power of ether?

Ans. I do not know of any; I have never seen it fail.

Cross-interrogatories by A. Jackson, jr., counsel for Dr. Charles T. Jackson.

1st. In answer to the 2d interrogatory, you have spoken of knowing Dr. Jackson. Whether or not you have known him intimately? Whether you visited him in his laboratory or family?

Ans. I should not say intimately. I have not visited him in his family. I have been in his laboratory when business called me there; not very often. He has not visited me; he may have been in my study.

2d. In answer to the 7th interrogatory, you say that Dr. Morton first administered ether in private surgical practice. Can you state how often—the number of times?

Ans. I cannot.

3d. Will you please describe the operating room or theatre at the hospital?

Ans. It is arranged like an amphitheatre, the seats rising half round, one above the other. The operating area is in the centre. In the rear opposite the seats are cases containing the surgical instruments. On each side of the area, at the termination of the seats, is an entrance. Before entering the door on each side which leads to the area, a passage way on the east side leads under the seats up a flight stairs to the highest seat, through which the students enter to witness the operation. On the west side a passage way leads under the seats not having any communication with

the operating room, but is used as a bed-room. There it was that Dr. Morton went in.

4th. If a person should come in late, to what part, if any particular part, would he go in the operating theatre?

Ans. He would go through the entrance on the east side up these stairs, or he would enter by the west side into the area, which has a communication on that side with the seats. This area, I should have observed before, has a partition or fence from the end of the lowest seat, over to the wall on the opposite side, having a door through which the patients pass. This was placed there originally to prevent spectators coming into the area during an operation.

5th. In answer to the 19th interrogatory, you speak of Dr. Jackson as not present at any operation when ether was administered before the 2d of January. Whether or not you remember that he was present at one time with Dr. Reoffroy, when ether was administered early after its introduction?

Ans. I do not. I never saw him there at that time.

6th. Can you state whether or not Dr. Jackson was present at the hospital with Benjamin Silliman, jr., at any early operation under the influence of ether?

Ans. I cannot.

7th. Whether or not you remember the case of Fanny Abbott, one of the early surgical cases at the hospital after the introduction of ether, whose leg was amputated on account of carious affection of the bones of the ankle?

Ans. I do. I amputated that leg on the second day of January, 1847.

8th. In answer to 19th interrogatory, you speak of Dr. Jackson as not being present at any operation at the hospital, where ether was used for inhalation before the 2d of January. Whether or not you mean not present before that time around the operating table, or in the operating area? or not in the operating theatre any where?

Ans. I mean not in the operating theatre any where, as a spectator or assistant.

9th. Will you please state about how many persons were usually present in the operating theatre?

Ans. During the lectures, about one hundred. Before the lectures twenty-five to fifty.

10th. Whether the period when the lectures were given embraced any, and if any, what portion of the time from October '46, to January '47?

Ans. The lectures began the first Wednesday in November, and continued four months.

11th. Whether, at the operation of January 2, 1847, you remember whether or not an inhaler was used in the administering of ether? Can you state who administered ether at that date?

Ans. I cannot remember; probably one of the surgeons administered it.

12th. Whether or not you remember that C. F. Hayward, then house surgeon, administered it?

Ans. I cannot remember precisely on that point. When we first administered ether, it was generally administered by the surgeons alone, as we were more cautious in its administration, not being so familiar with its effects as we now are.

13th. Whether Dr. Jackson then stated to you that he had brought the oxygen gas to be used in case of asphyxia?

Ans. He did.

14th. Whether or not you remember that Dr. Jackson then spoke of the use of the sponge? Whether or not, if an inhaler was then used, a probe was thrust in to keep the atmospheric air-valve open?

Ans. I do not remember whether Dr. Jackson spoke of the use of the sponge, or whether a probe was thrust in to keep the atmospheric air-valve of the inhaler open. I have seen it done on other occasions.

15th. Whether or not, during the first few months when ether, by inhalation to prevent pain, was used at the hospital, being administered by means of an apparatus, asphyxia, partial or otherwise, was sometimes produced thereby?

Ans. It was.

16th. Whether or not among the surgeons various theories have prevailed, or still do prevail, as to the condition a person is in after a due inhalation of ether?

Ans. I do not know that there is now any difference of opinion; I believe there has been heretofore. Various papers have been written on that subject, to account for the action of ether upon the brain.

17th. Whether or not, during the first few months of such use of ether at the hospital, one theory or opinion was, that asphyxia was the inevitable concomitant of etherization?

Ans. No sir; I do not think it was.

18th. Whether or not at one time during the period of the early administration of ether at the hospital, the opinion prevailed that the effects of ether—the insensibility to pain thereby produced—depended on partial asphyxia?

Ans. I don't recollect of any such opinion prevailing.

19th. Whether or not, during the early use of ether, the fact that the blood from the wounds of etherized patients was darker than from wounds when ether was not used, was pointed out as one indication tending to support some theory on this point? If so, to what theory?

Ans. It was observed; I can't answer to what particular theory that pointed.

20th. Whether or not, at the operation of the 2d of January, you recollect that in that case the fact was pointed out that the blood was not darker than in cases where ether was not used?

Ans. I do not.

21st. Whether or not one theory was, that ether produced a great excitement of the nervous energy, so as to produce a collapse of all nervous sensibility?

Ans. I don't know.

22d. Whether or not, at one time, the theory was, that the state induced by ether was nothing but dead drunkenness?

Ans. I don't know.

23d. Whether or not one theory was, or is, that etherization is an unoxgenated state of the blood, produced by the anæsthetic agent used?

Ans. That is the state of the blood in case of asphyxia from the use of ether; but whether it is when asphyxia does not prevail, I am doubtful; because, when asphyxia does not prevail, the blood from the arteries is florid; when the patient is in the state of asphyxia, the blood from the arteries is dark colored, like that from the veins.

24th. In 15th interrogatory, the question is as to the care and skill of Dr. Morton in the use of ether. Whether you were ever present in Dr. Morton's rooms at any administration of ether, in the fall of 1846 and the winter succeeding?

Ans. I was present in his room with his partner or assistant, D. P. Wilson, to have something done to my own teeth by Dr. Wilson, and saw the ether administered for the extraction of a tooth once or twice.

25th. Whether or not, in reference to your answer to 7th interrogatory, you intended to be understood to say that, so long as inhalers were used, Dr. Morton always attended to administer ether?

Ans. No, sir; I don't know that he did.

26th. How many times did you ever see Dr. Morton administer ether, both at the hospital and in any cases of private practice, in which he may have administered it?

Ans. Not more than six times, but I am uncertain as to that. After we became accustomed to it at the hospital, we used it ourselves.

27th. In answer to the 16th interrogatory, it is said that the first time you heard of Dr. Jackson in connexion with the ether discovery, was about a week after the two cases at the hospital—the cases of October 16 and 17, 1846. Can you now state what it was which you then heard on this point?

Ans. I can state nothing more particularly than I have done in that answer.

28th. Were you present at the meeting of the American

Academy, November 3, 1846, when this matter of etherization was announced?

Ans. I was not.

29th. Whether or not you heard from Dr. Warren anything respecting any letter to him from Dr. C. T. Jackson, respecting ether, or the discovery, in the fall or winter of 1846-7.

Ans. I do not recollect at this time.

30th. How as to your impression or belief on this point?

Ans. I have no recollection of it; I might or I might not; if I did, it has escaped my mind.

31st. In reference to the answer to the 11th interrogatory, the inquiry now is, if asphyxia, produced from want of atmospheric air, is not dangerous?

Ans. I do not consider, when asphyxia is produced from inhaling ether now, that there is any cause of alarm; I have seen it so often, and they always recover from it, that I do not feel alarmed.

32d. Whether or not the asphyxia produced by inhaling ether is not by reason of too little atmospheric air for the patient?

Ans. Undoubtedly it is; that is the cause of asphyxia.

33d. Whether or not, in reference to the answer to 12th interrogatory, the reason that asphyxia is produced where the sponge is used, is not because the sponge is pressed so close to the mouth and nostrils, that the patient cannot get atmospheric air?

Ans. It may be in some cases; I have seen it produced also where it was not pressed to the mouth and nostrils; there seems to be a difference in the susceptibility of persons taking ether; I cannot give any reason for its occurring in those cases where the sponge is not pressed to the mouth and nostrils.

34th. If a person ignorant of medicine, administers a remedy prescribed and directed by a regular physician, in accordance with directions which he had received from the regular physician, who is responsible for the effect which follows—the physician or the person administering the remedy?

Ans. The physician, I should say, of course.

35th. Whether or not, Dr. Morton, in September, 1846, was admitted to practice, or had got his degree in dental surgery which gives him the title of "Doctor?"

Ans. I think not, but I am not certain; if the only M. D. which he has now is the one which he received at Washington, he had not it at that time.

36th. During your acquaintance with Dr. Morton, has his knowledge, or want of knowledge of scientific matters, of ether, and the various kinds, and the properties of ether, come under your observation—if aye, what is his knowledge of them?

Ans. They have not come under my observation?

37th. Was Dr. Morton an educated man?

Ans. I don't know.

38th. Have you ever witnessed any experiments showing the use of sulphuric ether on quadrupeds, such as dogs, cats, &c.—if aye, has it or not been the case with them, that while recovering from the effects of ether, for some 5, 10, 15 or 20 minutes before they could walk, leap or run, that they would crawl about, dragging their hinder extremities, their hinder quarters, after them?

Ans. I have used it myself in one case which I remember particularly—the dislocation of the shoulder of a dog—which was immediately reduced under its influence; I never saw but this one experiment, and I don't recollect that the effects inquired about took place in this case.

39th. Will you please state the proportion of nitrogen in the air compared with that of oxygen—whether nitrogen is merely of use in nature to dilute the oxygen?

Ans. The proportion is seventy-seven parts of nitrogen to twenty of oxygen, and a fraction of aqueous vapor; it is so proportioned as to be fit for respiration.

40th. Whether in breathing pure oxygen you breathe about four times as much oxygen as if you breathe common air?

Ans. We do.

41st. Suppose a patient dangerously asphyxiated, breathing common air will restore him; will not pure oxygen inhaled into the cells of the lungs operate in restoring the asphyxiated patient about four times as soon as common air?

Ans. I should think it would, upon theory; I have never seen the experiment tried; it would undoubtedly restore him sooner.

42d. Whether at the first operation at the hospital, where the unknown agent was used, on the 16th of October, cascarilla bark was burned on the stove in the operating room?

Ans. Not that I know of; I have no recollection of it.

43d. Are you acquainted with the odor of the essence, or *eau de millefleurs*?

Ans. I am.

44th. Was not this mingled with the preparation first used at the hospital on the 16th of October?

Ans. I do not know that it was.

45th. Whether or not the odor you perceived of some substance mingled with the ether, was like, or similar to that of "*eau de millefleurs*?"

Ans. I don't recollect.

46th. What led to the opinion that cascarilla bark was mingled with the ether?

Ans. In former years I had made great use of cascarilla bark

in certain cases of disease which often occurred to me, and I was familiar with the drug; I also had used it in making up of pastiles to burn, and therefore discovered its odor at that time.

47th. Can a man ever know, after awaking, whether or not he has been in a perilous state during sleep, or during a period of unconsciousness?

Ans. I think he cannot.

48th. Might not a man who has been unconscious for a brief interval, knowing, on recovering his consciousness, that he had not received any harm, infer that he had not been in danger?

Ans. I should suppose he might.

49th. Must not the idea of insensibility to pain have preceded any suggestion of the use of ether for that purpose?

Ans. I should think it must.

50th. Did not the idea and suggestion in 1846 immediately lead to the use of ether?

Ans. I suppose it did.

51st. Has not the idea or suggestion of Dr. Jackson's, of insensibility to pain in surgical operations (supposing him to have made such suggestion to Dr. Morton on the 30th of September, 1846,) proved to be true?

Ans. Yes, I suppose it has.

52d. In your opinion, then, was not this idea of great practical importance?

Ans. Yes.

53d. Cannot a discovery be made unless the person who makes it has been previously in pursuit of the end reached?

Ans. He need not necessarily have been in pursuit of it to have made the discovery.

54th. Is not a man devoted to scientific researches likely to draw inferences more or less probable, from any and every observation, casual or otherwise, he may make, which point more or less clearly to a scientific truth?

Ans. I suppose he is.

55th. Newton perceived that the diamond and water had a peculiar effect on light. Could he or not infer the existence of an inflammable substance in them?

Ans. I don't know.

56th. Newton perceived that the apple fell. Could he or not infer a law by which the apple was drawn to the earth, to wit, the law of gravitation?

Ans. Yes, and he did.

57th. Is it fair, reasonable or just, to the authors of scientific discoveries, to express opinions, or argue against the probability of their having drawn certain conclusions, or inferred certain truths, because men of dissimilar minds, and devoted to different

pursuits, would not perhaps have drawn the same conclusions, or made the same inferences?

Ans. I don't wish to give an answer to that question.

58th. Whether or not any person can be the author of a discovery in the inductive sciences, without either originating any new idea, or devising the means of establishing the truth of a conjecture, whether more or less probable, previously brought to view by another person?

Ans. I don't think he can.

59th. Whether or not you are familiar with the facts connected with the early history of the ether discovery?

Ans. I have read all the publications on the subject.

60th. Whether or not you can specify any new idea connected with this discovery first originated by Dr. Morton, or can state any new experiment first devised by him, by which that discovery was established?

Ans. I know of nothing, but his first experiments which I witnessed at the hospital.

61st. Whether or not, in your opinion, the purity of the sulphuric ether from alcohol and acids, and the due admixture of atmospheric air, are not among the most important particulars embraced in the discovery of etherization?

Ans. Those are the most important particulars in the safe administration of ether.

62d. Admitting that, as stated by Mr. Bowditch, in his vindication of his hospital report of 1848, Dr. Jackson did, on the 30th of September, 1846, state to Dr. Morton, before Morton extracted the tooth of Eben Frost, on the same day, that Dr. Jackson pointed out to him the two conditions in the inhalation of ether: first, a due admixture of atmospheric air; second, purity of the ether from acids and alcohol, could, in your opinion, Dr. Morton on that extraction of a tooth, and on those painless operations that followed, set up the title of exclusive discovery?

Ans. I should say not.

63d. Is it your opinion that Franklin, who made partial experiments, and suggested, but did not first perform a decisive experiment, was the discoverer of the identity of electricity and lightning, or Coiffier, who first performed that decisive experiment as devised and suggested by Franklin?

Ans. I don't pretend to decide.

64th. Do you concur with Whewell, the historian of the inductive sciences, in the following opinion of his: "I do not concede that experiments of verification, made after a discovery has been already brought to view by one person, and devised by the discoverer, and committed by him for performance to another, give the operator a right to claim the discovery as his own?"

Ans. I have not formed any opinion upon that subject, and

must decline to answer such questions. I only come to state facts, and not to act as a judge.

65th. How soon after the 16th of October, 1846, was any question made, raised, or discussed, as to who was the discoverer of etherization?

Ans. From the length of time which has elapsed, I cannot recollect. It is not fixed in my mind.

66th. So far as you know, from the time there was any question made, raised, or discussed, on this point, has not Dr. Charles T. Jackson always, on all fit occasions, stated and declared himself to be the discoverer?

Ans. I believe he has.

67th. Whether you recollect that the operation of November 7th, the amputation was to have been performed on Saturday, October 31st, and was postponed to Saturday, November 7th?

Ans. I cannot recollect myself, but I have heard that stated by some of the surgeons within a year.

68th. Whether or not, all the medical authorities known to you, in September, 1846, who had expressed any opinion in regard to inhaling sulphuric ether vapor, to such an extent as to produce unconsciousness, did not pronounce it highly dangerous so to do?

Ans. I can't give a decided opinion whether all had. Some authorities had pronounced it dangerous.

69th. Whether or not, to your knowledge, any person, previously to the fall of 1846, ever suggested the inhalation of sulphuric ether vapor, as a means of preventing pain in surgical operations?

Ans. I never heard of any one.

70th. Whether or not any person to your knowledge, before the fall of 1846, ever advanced the opinion that it was safe to inhale sulphuric ether vapor, to such an extent as to produce unconsciousness?

Ans. Not that I know of. I did not know anything about ether as anæsthetic, or hear anything about it, until the day of the first operation.

71st. Whether or not Pereira's *Materia Medica* is a work which persons who are not physicians in actual practice, or apothecaries, would be likely to purchase, or to have in their possession? whether or not it was first published in 1839?

Ans. I should think persons not physicians would not. Apothecaries might. I do not know whether it was first published in 1839.

72d. Is the same state of insensibility which the inhalation of pure sulphuric ether induces produced by any other vapors with which you are acquainted? Is it produced by drugs, such as opium?

Ans. It is not. A state of insensibility from alcohol, produces the same effects, but not from opium. I once was called down to the hospital to amputate the leg of a man who had been run over by the cars. He was in a state of beastly intoxication. He was so much intoxicated that I thought it unsafe to administer ether to him. After the operation, he declared that he did not know that it had been performed, and also that it gave him no pain.

73d. Have you ever inhaled ether in your own person so as to produce unconsciousness?

Ans. I have not.

74th. In one place in this deposition it is stated that one part of the body may be insensible to one degree of pain and not to another. May not, under the effects of inhaled ether, the nerves of sensation be paralysed and at the same time the party so paralysed be to such an extent conscious as to know and remark on what is doing in the room?

Ans. I have seen such cases.

75th. Have you known of cases where a patient under the influence of ether, had possession of his intellectual faculties?

Ans. I once knew a case of a young lady who was operated on, who had the sense of touch existing, and yet did not feel the pain of the operation. She could distinguish a ring placed in her hand. That was an uncommon case.

76th. Have you known of cases where, after enough had been given to produce unconsciousness, where after consciousness returned, and while insensibility to pain continued, that the patient had possession of his intellectual faculties?

Ans. I have not.

77th. Did you know that Bouisson, in his work on etherization, states, "that the integrity of the intelligence is preserved while the sensibility is paralyzed," in some cases?

Ans. No, sir.

78th. Has it not happened, over and over again, that parturition has taken place without any sense of pain where perfect consciousness continued?

Ans. I have had such a case.

79th. Suppose it were known to you that the nerves of sensation in the human body were paralyzed, should you not state that you knew that the body could feel no pain of a surgical operation as an inference from such fact?

Ans. Not until I had repeatedly tried the experiment afterwards.

80th. Supposing it to be stated that the fact noticed by a gentleman was that persons who had inhaled ether had been for a few moments deprived of sensibility, do you hold this to be a physiological fact which one could not verify on himself?

Ans. I don't think he could.

81st. Suppose that a person knew that by reason of a certain process he was insensible to pain in his nerves of sensation in his throat, could he not infer from this fact, that, if he repeated the same process, he would become insensible to pain produced in another part of his body; as for instance, a burn, or blister, on his arm?

Ans. I don't think he would, unless he continued to repeat the experiment for that purpose—I will state a case. A young gentleman, ten years since, who is now a physician, was inhaling ether for amusement, as was the custom at Harvard College. He took enough to make him so insensible that he fell upon the floor. In falling he cut his head badly. On recovering he was unaware that he had injured himself at all. But this did not lead him to any farther experiment.

82d. Suppose a painless extraction of a tooth to have been performed by means of a certain process, the tendency of which process was to annul pain in dental and surgical operations, could you not infer from this fact, that all dental and surgical operations requiring a brief insensibility to pain might be painless?

Ans. Yes. I should be inclined to, certainly.

83d. Will you be kind enough to state the component parts of pure rectified sulphuric ether?

Ans. I do not know them—I mean I do not remember the proportions. It is composed of sulphuric acid and alcohol.

84th. Is not the etherized state generally one of agreeable dreams? is there any stupor or congestion of the brain?

Ans. That is various in various people; often it is so, at other times there is a stupor; the visible effects of ether are entirely various in different persons.

85th. In surgical cases, where sulphuric ether, by inhalation, has been used, has there been, generally, headache, or any cerebral symptoms, after the inhalation, or unpleasant effects from the use of it?

Ans. In many cases there are; in many cases there are not; I don't think such are the general effects.

86th. Is there any muscular excitement in a patient, if pure sulphuric ether is given, by inhalation, at once, in a large volume?

Ans. There often is; it is not so generally.

87th. Suppose that a person is under the influence of liquors, but has not reached the point of dead drunkenness, can you, in most cases, make him dead drunk by the inhalation of ether?

Ans. I never tried the experiment, nor saw it tried, but I should think it not unlikely.

88th. Is it not a fact that persons partially drunk with alcohol cannot, in most cases, be etherized?

Ans. It is difficult to etherize intemperate men; I cannot say how it would be as to persons partially intoxicated?

89th. Whether you remember that after an operation during the early use of ether, at the hospital, in the fall and winter of 1846-'7, it frequently happened that black blood had been seen from the arteries of the etherized patients, that Dr. Warren and others of the surgeons, in remarks to the class of students, pointed out the black or darker blood, in connexion with what was said of the asphyxiated state of the patient?

Ans. I do remember it.

90th. Whether or not you consider that the operations made in the fall of 1846, at the Massachusetts General Hospital, are an important part in the discovery of anæsthesia, by inhalation of pure sulphuric ether?

Ans. I certainly think they had a strong connexion with it, because if the operations had not been performed the discovery would not have been made, in my opinion.

91st. Whether or not the operations at the hospital on the 16th and 17th of October were regarded of great moment, or whether the operation of November 7th, the amputation in Alice Mohan's case, was regarded as a great and conclusive test?

Ans. The first operations were regarded as of great moment, and the amputation as still greater and conclusive.

92d. Why, and how, is chloroform dangerous in inhalation?

Ans. It seems to be by suddenly depressing the vital powers, it being a more powerful agent than sulphuric ether.

93d. Whether chloric ether is a solution of chloroform in alcohol?

Ans. That is a question I can't undertake to decide, but leave it for apothecaries and chemists. I don't know much about it.

94th. Whether chloric ether is not to some extent, like chloroform, dangerous?

Ans. I think it is.

Direct, resumed by Mr. Dana.

1st. Is your answer to the 51st cross-interrogatory made on the assumption that he suggested to Dr. Morton the total insensibility afterwards proved? if it had been merely a suggestion of some degree of insensibility or unconsciousness, would it have required any proof?

Ans. My answer was made on that assumption. If it had been a suggestion of some degree of insensibility or unconsciousness, it would not have required any proof, because that was

known before. I had used it myself to relieve a cough, by holding it and breathing it from a saucer.


2d. Was it, or not, known before September, 1846, that ether could be inhaled to a greater or less degree of unconsciousness, and no injurious result follow? Had there been such cases?

Ans. The books stated that it could be. It is so stated in Pereira, there had been such cases. As I have said before, it had been used in Cambridge by the students often.

3d. In answer to the 60th interrogatory, do you confine yourself to your own knowledge? or do you give an opinion on what you have read and heard?

Ans. I confine myself to my own knowledge.

Dr. Jackson's claim 4th. Please refer to your answer to the 62d cross-interrogatory. If Dr. Jackson, at the time, did not know, or believe, or expect other than the then known and usual results to follow, but only advised Dr. Morton of the best mode of using ether, and the best kind, and Dr. Morton did not act as his agent, or jointly with him, but on his own responsibility, what claim had Dr. Jackson as a joint discoverer?

 Ans. I should think he would have the claim which a person would have who had got that information from books and communicated it to another.

5th. Is your answer to the 62d cross-interrogatory made on the supposition that Dr. Morton acted in the experiments as the agent of, or jointly with, Dr. Jackson, and that Dr. Jackson anticipated the discovery which followed?

Ans. My answer was upon the supposition that he acted in the matter as the agent for Dr. Jackson, without going into the merits of the case, as to whether he did or not.

6th. Do you confine your answer to the 66th cross-interrogatory to your own knowledge? or do you give an opinion on what you have read and heard?

Ans. I do not mean by that answer to say that he has always done so from the first, but that, generally speaking, he has made that claim. I won't fix any definite time.

It grows with the controversy. Note this and see next page. 7th. When he began to make his claim, did he claim the suggestion or the full discovery.

Ans. I think only the suggestion. His claims seemed to have increased as the controversy continued.

8th. Do etherized patients sometimes observe correctly objects about them, and recognise persons?

Ans. In rare cases they are able to recognise and see people before they become fully etherized.

9th. Does this fact alter your opinion that they are still in an unsound mental state?

Ans. No, it does not.

Cross resumed by Mr. Jackson.

1st. Will you be kind enough to state what is referred to by you in your answer to the second direct resumed, as stated by Pereira, about the inhalation of ether in reference to unconsciousness?

Ans. It is some time since I have read the case which I refer to in Pereira; but it is my impression that he states that it may be taken for the relief from the pain of chlorine gas.

2d. Since the sixtieth interrogatory did not require an answer confined to your own personal knowledge, will you be kind enough to state how, if at all, you should change your answer to that interrogatory, including, besides your personal knowledge, any fact you may have read of, heard of, or known of?

Ans. I had heard that Dr. Morton had tried the effects of ether on himself previously.

3d. "Always done so, from the first:" what is meant or intended by that phrase in the answer to the sixth direct resumed?

Ans. I do not mean from the first day the experiment was tried. I can't fix any time. After the controversy waxed warm, it is well known that Dr. Jackson laid claim to the joint discovery.

4th. In what way "increased;" and what is intended by that answer to seventh direct resumed?

Ans. I mean to say, that he has laid claim to experiments upon himself, and to the first discovery, which I had not seen or heard of at first. For instance: his letter to Baron Humboldt—which I never read till within a month—gives a minute detail of an experiment tried upon himself, of inhaling ether, which I had never seen described before, or heard of, although I read all his communications on the subject, and that of his friend, in the early part of the controversy. By the letter to Baron Humboldt, I mean that contained in the minority report of a committee of Congress, the last year.

5th. Can you state any one *fact* now set forth by Dr. Jackson, in reference to the fact that he made the discovery of etherization, which he did not declare in the fall and winter of 1846-'7?

Ans. As I have answered in the previous interrogatory, his minute description of the manner in which he took ether he did not declare in the fall and winter of 1846. If he did, I never heard of them. There are other statements in that letter which are new to me.

6th. When or where did you ever hear or know that Dr. Jackson stated that he was a *joint* discoverer, with any one, of etherization?

Ans. I don't know. I can't remember. I don't know that it was the joint discovery; it might be the sole discovery.

S. D. TOWNSEND.

COMMONWEALTH OF MASSACHUSETTS, } ss.
Suffolk county,

We hereby certify that the foregoing is a true copy of the deposition *in perpetuam* of S. D. Townsend, taken before us, upon the petition of William T. G. Morton, under the statutes of this Commonwealth.

GEO. T. CURTIS,
J. P. PUTNAM,

Two Justices of the Peace and Counsellors at Law.

BOSTON, December 18, 1852.

Deposition of Mr. Burnett, apothecary.

I, Joseph Burnett, of Boston, in the county of Suffolk, and Commonwealth of Massachusetts, apothecary, of lawful age, being first duly sworn, depose and say, in answer to interrogatories by R. H. Dana, jr., esq., counsel for Dr. Wm. T. G. Morton:

1st. How long have you resided in Boston? What is your occupation, and how long have you followed it?

Ans. I have resided in Boston thirteen years at least. I am an apothecary, and have followed the occupation ever since I have been in Boston, as clerk and proprietor; I have been proprietor nearly eight years.

2d. Where is your place of business? How long has it been there?

Ans. My place of business is No. 33 Tremont Row, in Boston, and I have always been there.

3d. How long have you known Dr. Charles T. Jackson?

Ans. I have known him by reputation since I have been in Boston, and personally for ten years, I should think.

4th. Did you know anything about Dr. Wells's experiment with nitrous oxide? If yea, state all you know.

Wells's
failure.

Ans. I knew that he advertised that he had such an agent. I next heard that his experiments were unsuccessful; that he had invited some physicians and scientific men to witness some experiments, which had failed. They were in Boston. My impression is that the place was opposite the Tremont House.

5th. Did you hear of this at the time? Was it or not, and how far, generally known?

Ans. I knew of it at the time. It was told to me. It was a matter of general remark.

6th. State when this was, as nearly as possible.

Ans. I should think it was in the year 1844 or '5, one of them. It was one of the passing topics of the day, which I did not fix in my mind.

7th. Have you ever heard Dr. Charles T. Jackson say anything about this experiment of Dr. Wells's?

Ans. I have never heard him speak of it, to my knowledge. He may have made some remark about it, but, if he did, I have forgotten it. I ought to have said that I don't remember it.

8th. Were you present at the experiments at the Bromfield House, November 21st, 1846? Who administered the ether? What was the operation, and who performed it?

Ans. I was present at the operation there, which is published, I believe that is the date. Dr. Morton administered the ether. The operation was the removal of a tumor, by Dr. Warren. Both of the Drs. Warren were there, and I can't state which performed it. I was considerably excited at the time, to witness the operation. The one who did not operate assisted the other. I was watching the effects of the ether, and paying more attention to that than to the operation.

9th. Was Dr. C. T. Jackson present? Did he take any part in the administration of the ether?

Ans. He was present. He did not take any part in the administration of the ether.

10th. Who else was present?—how many persons in all?

Ans. I could not state how many were present, I should think eight or ten persons; I recollect the Drs. Warren, Dr. Jackson, Dr. Morton; the others I did not know.

11th. Did you have any, and what, conversation with Dr. Jackson, at or before that time?

Ans. My impression is, that I walked with him to the house; what our conversation was, I cannot remember. I think I called at his office the day before, on some matter connected with my own business, and some conversation took place about going there. I think he began the conversation. My impression is, that he invited or advised me to go, but I am not sure of it. It was about that time that he told me in his office of the pecuniary arrangements he had made with Morton. It was, I think, before that. He told me it was ten per cent. of the proceeds, or the profits, I don't remember which. We conversed very frequently and very freely, but I do not remember the conversations. It was at some later period that he told me he had a bag of oxygen which he should take to the hospital, to use in case of danger. He said he apprehended danger in the hands of those who used it. I think the remark he made was, that "they would kill somebody

with it." That is all I remember with sufficient clearness to relate.

12th. How long was this conversation about the bag of oxygen, after the experiment at the Bromfield House?

Ans. I can't state distinctly the time. My impression is, that it was late in the fall of '46. I am clearly of the opinion that it was some weeks later than the operation at the Bromfield House, and it might have been months.

13th. How long have you known Dr. W. T. G. Morton? How near is his place of business to yours?

Ans. I have known him since his appearance in Boston. His place of business is ten or twelve doors from me.

14th. After the ether discovery was announced, what did Dr. Morton do towards the general introduction and defence of it? What was done for or against it by the dentists and others?

Morton's
labors in
the cause
of ether.]] Ans. He labored very constantly and very energetically in employing agents, publishing books, advertising. There was a feeling of considerable hostility, on the part of the dentists, towards Morton. They held meeting, or meetings, on the subject, and published a circular, [which I heard one of Morton's agents say he met with in almost every State of the Union.] The circular stated the agent to be ether, and advised persons to whom it was addressed, not to purchase the right, stating that they could use it freely without paying for it.

(The part in brackets objected to .J. P. P.)

15th. What ground did the dentist take as to the safety and effect of ether? what did they do on that point?

Ans. At the time of its introduction, there were various opinions about its safety. I have heard some people say it was safe, and others that it was dangerous. The dentists were generally desirous of purchasing it, and generally considered it safe. There were no accidents that I heard of. The reason attributed for calling the dentists' meeting was because Morton refused to sell them his rights, thinking he could control the matter in Boston, and they were rather provoked at that.

16th. Do you recollect any circular of periodical publications, in the newspapers, or otherwise, by Dr. Flagg and others, stating cases, and taking ground on the subject of its safety and effect, and what ground?

Ans. That is the circular which I refer to; I don't remember to have seen but one, and that one was published in the newspaper, and signed by Dr. Flagg, Tucker, and others. I understood that that circular was published in different forms and distributed.

17th. How much of Dr. Morton's time was devoted to the introduction and defence of ether, during the first six months or year after its introduction?

Ans. I should say almost entirely.

18th. What had been the state of his business up to that time? what effect had these labors of his upon it?

Ans. It had been at times very flourishing, and was I think a growing business. These labors of his injured his business, of course. He neglected it and it fell off.

19th. Had his labors in the matter of ether any, and what effect on his health?

Ans. It injured his health and affected his whole nervous system, this constant excitement; it rendered him weak, so much so, that he was obliged to employ a physician, he took medicine at that time and active remedies.

20th. Did Dr. G. G. Hayden bring you a demijohn of ether to be examined? when? what did you find it to be?

Ans. He did bring me a demijohn of ether to be examined. I remember the fact that it was brought in, shortly after the ether question began to excite public attention. I found it to be not good sulphuric ether, that is, it had water and alcohol in it. I weighed it and found it much heavier than pure ether.

21st. Was there more than one such occasion?

Ans. No, sir.

Cross examination by A. Jackson, Jr., Esq., Counsel for Dr. Charles T. Jackson.

1st. How large was the demijohn referred to in answer to the twentieth interrogatory?

Ans. My impression is that it was a gallon demijohn. It might have been a half gallon or a two gallon.

2d. Who brought this demijohn? what, if anything was said about it, or its contents, by the bearer.

Ans. Mr. Hayden brought it; he asked me what it was. I told that him it smelled and tasted like sulphuric ether; he inquired if I would tell him if it was good or pure. I then weighed it and found it to be not good; he then asked for my certificate, which I gave.

3d. What was mingled with the contents of the demijohn, if anything besides alcohol and water? what examination was made as to the contents, if any besides what you have stated? what reason, if any, was given for getting a certificate from you? how much ether was there in the demijohn?

Ans. Probably sulphuric ether was mingled with it. I did not analyze the ether, I only satisfied myself that it was not good ether. I think one of my clerks tried litmus paper, with the view of seeing if there was acid in it. It is a blue paper and redens at the presence of acid. No reason was given for getting a certificate; I asked for one, and Dr. Hayden laughingly declined giving one. The demijohn was part full; I could not say whether a quarter or three-quarters full; there was considerably more in it than was poured out for the examination.

4th. What, if anything, did Dr. Hayden say as to where he got this demijohn, or where he brought it from?

Ans. Nothing was said about it, I heard nothing said.

5th. How many, and what, the kinds of ether? please give some account of the different kinds?

Ans. Sulphuric ether is the most prominent. There is nitrous, acetic, chloric, and a great many other kinds. These are the kinds which are principally used.

6th. What is chloric ether? how made? what of?

Ans. Chloric ether is distilled from chloride of lime, mixed with alcohol and water generally.

7th. Whether chloric ether, is a solution of chloroform in alcohol?

Ans. It may be, there are different ways of arriving at the same result. Chloroform is a concentrated chloric ether.

8th. For the purpose of inhaling sulphuric ether, in a surgical case or an experiment, how much, in what sized bottle would a purchase ordinarily be made?

Ans. Sometimes half an ounce will produce the result, and sometimes a half a pound is required. We generally sell for the purpose of surgical operations or midwifery cases a pound sometimes, and sometimes half a pound. In such cases they generally intend to have a supply for a long operation; the size of the bottle would be a half ounce bottle, fluid measure, or half a pound, fluid, according to the quantity wanted; we sell constantly bottles of all sizes.

9th. Do you ever sell sulphuric ether to purchasers, for purposes of inhalation, by the demijohn?

Ans. Yes, to physicians and dealers, and sometimes to others, though rarely.

10th. Whether or not, when so sold, it is intended by the physicians to use the ether so purchased for a large number of cases or operations?

Ans. Yes, undoubtedly.

11th. Suppose a purchaser to come in and ask for *ether*. What kind of ether would he get? Whether or not he would get sulphuric ether? Is or not sulphuric ether the common kind? And whether or not this was so anterior to 1846?

Ans. We should ask him what kind of ether he would have. If the messenger should not know, we should put him up sulphuric ether, so labelling it, and telling him he could exchange it if it was not right. This not unfrequently happens. Sulphuric ether is the common kind, and it was so anterior to 1846.

12th. Whether or not, in the summer and fall of 1846, and anterior thereto, Dr. Morton was in the habit of obtaining articles from your place, and whether or not he had a bill with you?

Ans. He was in such habit. Sometimes he had a bill; not constantly.

13th. Is there any charge of ether, or of sulphuric ether, in

your books, or on your accounts against Dr. Morton, in the summer or fall of 1846?

Ans. I don't know.

14th. Has or not any examination been made to find such charge, if there was any such?

Ans. Not to my knowledge.

15th. Do you know of any sale during that time to Dr. Morton of sulphuric ether?

Ans. I don't know of any positively, and yet I might have sold it to him myself, but I should not be likely to remember.

16th. Whether you remember of any sale during that time, of any sulphuric ether to him?

Ans. I don't remember any.

17th. At the Bromfield House, spoken of in answer to 8th interrogatory, whether you recollect or not that Dr. Morton came in late, when the patient was nearly etherized? and that Dr. J. Mason Warren administered the ether to the patient?

Ans. I don't remember it.

18th. Whether you remember the name of the patient? was it Williston?

Ans. I don't remember it.

19th. Whether you remember that when the knife was first used, the patient turned or rolled away from the cut?

Ans. He made some motion; I thought at the time that he was suffering somewhat, but I very soon after heard him say that he knew nothing about it, but had been perfectly happy. It was some time before Dr. Warren could convince him that the tumor was gone.

20th. Whether you remember that Dr. Jackson stood by the side of the patient, felt his pulse, and talked with him as to any perception of pain when the knife was used, and this after the patient recovered his consciousness?

Ans. I don't remember that. I did not stand near the patient.

21st. Whether or not at the time spoken of by you in answer to 11th interrogatory, Dr. Jackson stated that the first arrangement he made with Morton, was to transfer to him, or quit claim to him, the right to use ether, or administer it, for the sum of five hundred dollars?

Ans. He mentioned the ten per cent. as an equivalent for the assignment; I so understood it. Something was said by Dr. Jackson about the five hundred dollars; I should think it was not at this time. He stated that he had made some arrangement with Dr. Morton, as I supposed, but he was very much afraid he should not get that. These sums were named by Dr. Jackson during the course of the different conversations, but I do not remember very particularly their connection. The subject was frequently re-

ferred to when I called at his office on other business, but I took no note of it, and can't remember distinctly.

22d. Did he say anything of his hostility, or dislike to patents, in connexion with scientific matters?

Ans. He has subsequently, but think he did not at that time.

23d. In relation to the exygen, did Dr. Jackson say anything of its proposed use to prevent as physie?

Ans. He did. He spoke of it as a remedy for that.

24th. Did he then, or had he previously, said anything to you in reference to the recklessness of Dr. Morton in administering ether, or of any accounts or reports of disagreeable incidents, arising from Dr. Morton's administration of ether, which had been brought to his notice?

Ans. He had not previously, and I don't think he did then. He might have said it. A short time after he spoke very decidedly of Morton's recklessness and want of knowledge in such matters.

25th. Whether or not, what was so said, as stated in the last answer, was said by Dr. Jackson in reference to Morton's way or mode of administering ether.

Ans. He referred, I supposed, more particularly to that. He said he did not consider him a competent person to administer it.

26th. Of how general remark was the matter referred to in the 5th interrogatory?

Ans. I heard it spoken of several times. It would most likely be spoken of in my store, more generally than in other places. Dentists, physicians, and others meet there frequently.

27th. What, if anything, did you know of sales of patent licenses by Dr. Morton?

Ans. I knew that he made several sales. He sold several thousand dollars worth; from five to ten thousand dollars worth, and perhaps more, I should judge. He did not get his pay for all that he sold. I know of sales of about five thousand dollars worth.

28th. What, if anything, did you learn from Morton, of the extent of those sales?

Ans. I don't remember to have heard him say anything about it. During the first excitement, he made the remark that his fortune was made, and I supposed it was too.

29th. Did you hear from Dr. Morton, of his sending agents to sell licenses, and the percentage which they were to receive from these sales?

Ans. I knew that he sent agents, but did not know what arrangements they made.

30th. Whether, or not, since your acquaintance with Dr. Morton, you have had almost daily business intercourse with him?

Ans. I have up to the last year or two.

31st. Did you know that Dr. Morton, so long as patent licenses were sold, refused to sell any to the Boston dentists?

Ans. I did not know anything about what he might have done after the circular was published; I heard him say that he had them all, and meant to extract their teeth. I know he would not sell rights, because he meant to control the business, and had fitted up a room for the purpose.

32d. Did you know of his statements that he was sufficient for the dentistry of Boston.

Ans. I don't remember to have heard him make that statement.

33d. By your answer of "almost entirely," to the question of how much of Dr. Morton's time was devoted to the introduction and defence of ether, whether or not you mean the defence and introduction under his patent? whether you include in this phrase, time devoted to sales of licenses, &c.

Ans. I mean the whole. He had engaged clerks and secretaries to write for him. He had also a general supervision over his business, though he allowed it very little of his time.

34th. Whether or not, after the introduction of ether, Dr. Morton enlarged his premises, and had numerous assistants whom he had not before had?

Ans. Yes. He enlarged his premises, and I remember two or three extra assistants.

35th. Whether or not, after the introduction of ether, Dr. Morton's rooms were thronged by persons who wished to avail themselves of the painless extraction of teeth?

Ans. A great many persons went there to have their teeth extracted without pain. I never saw his room filled.

36th. In answer to 11th interrogatory, it is stated that Dr. Jackson conversed very frequently and freely, or something to this effect. Whether or not, from the time any controversy arose about etherization, so far as you have heard from Dr. Jackson, has he, or not, uniformly and steadily stated that he was, and that he so considered himself the discoverer of etherization?

Ans. Yes.

Direct resumed by Mr. Dana.

1st. What did Dr. Jackson say about the five hundred dollars?

Ans. It was spoken of in connection with another subject. He had shown me some sponge gold, which he had prepared in some peculiar way; I asked him to give me a specimen, that I might show it to Dr. Tucker, a dentist. I told him if he approved it, I should consider it an important thing, and should like the refusal of it. He told me that Dr. Hitchcock had partially the refusal of it. He then stated that he doubted whether he should get the five hundred dollars from Morton, or something to that effect. He stated that he had made application for a patent for this sponge gold.

2d. Do you know whether Dr. Morton sold rights for notes? and whether the notes were paid, or resisted, and why?

Ans. I know that he sold for part money and part notes, and that some of the notes were paid and some were not.

3d. When did you first hear Dr. Jackson claim to be the discoverer of the anæsthetic power of ether?

Ans. It was after the controversy arose between Jackson and Morton, after the pamphlets had begun to appear. I can't state when I did first hear it. It was during the fall of 1846, that I heard him say that he did not consider himself responsible at all for what Morton might do. It is possible that Jackson might have made the remark, that he considered himself the discoverer before the pamphlets appeared, but it was after the controversy began.

4th. Did he claim to have discovered all that is now known, or to have suggested to Dr. Morton to try ether?

Ans. He claimed to have suggested it to Dr. Morton. There are many new facts about ether which have originated since its first introduction. The subject was not entered into fully. He claimed as the suggester and as the discoverer.

5th. Did Dr. Jackson ever tell you that he had himself made any experiment?

Ans. He did not; I think I heard him make the remark that he had used it himself, but it was some years after the first discovery. I mean that some years after the discovery was known, I heard him say in my store, that he had used ether upon himself to be relieved from the effects of chlorine gas.

6th. When did Dr. Jackson make this statement to you about his patent for the gold? Did it turn out useful or valuable?

Ans. It was in the fall of 1846. It did not turn out practical for that purpose of filling the teeth.

7th. Did Dr. Jackson say that Dr. Morton had any thing to do with the use of this gold?

Ans. No.

Cross resumed by Mr. Jackson.

1st. Whether or not, you know that Dr. Jackson withdrew any application he may have made for a patent in reference to sponge gold?

Ans. I don't know.

2d. Can you state what led to the remark, in answer to 3d direct resumed, of Dr. Jackson, that he did not consider himself responsible at all for what Morton might do. Had anything been said about his being responsible for what Morton at first did? whether what was said by him about not considering himself responsible, was said in connection with Morton's recklessness?

Ans. I do not know what led to the remark; nothing had been said about his being responsible for what Morton at first did. I understood him to mean, with regard to Morton's application of ether. He has spoken of his recklessness repeatedly. Whether he spoke of it in this connection or not, I cannot say.

3d. Whether what you have said in answer to the last question about Morton's application of ether referred to his then daily use of it, or how?

Ans. I supposed it referred to Morton's knowledge, or lack of knowledge of the scientific application of it, enabling him to judge of its effects upon different people and in different forms.

4th. Whether it referred to Dr. Morton's general administration of ether?

Ans. I don't know as I can answer this any better than in the last.

JOSEPH BURNETT.

COMMONWEALTH OF MASSACHUSETTS, } ss:
Suffolk county,

We hereby certify that the foregoing is a true copy of the deposition *in perpetuam* of Joseph Burnett, taken before us upon the petition of William T. G. Morton, under the statutes of this commonwealth.

GEO. T. CURTIS,
J. P. PUTNAM,

Two Justices of the Peace and Counsellors at Law.
BOSTON, December 16, 1852.

Dr. J. Mason Warren's testimony.

I, J. Mason Warren, of Boston, physician, of lawful age, being first duly sworn, depose and say, in answer to interrogatories by R. H. Dana, jr., esq., counsel for Dr. Wm. T. G. Morton:

1st. What is your residence and occupation? How long have they been so?

Ans. My residence is at No. 6, Park street, in Boston; my occupation is that of a physician; they have been so about twenty years.

2d. Are you, and how long have you been, a surgeon of the Massachusetts General Hospital?

Ans. I am a surgeon of the Massachusetts General Hospital, and have been so about seven years.

Relations of the witness with the parties. 3d. How long have you known Dr. C. T. Jackson, and how intimately?

Ans. I have known him over twenty years; not very intimately; I have met him frequently.

4th. How long have you known Dr. Wm. T. G. Morton, and how intimately?

Ans. I have known him between six and seven years; not intimately.

5th. When were you appointed to act as surgeon of the hospital?

Ans. In February, 1846.

6th. Please to state all your personal knowledge of the first use of ether as an anæsthetic agent.

Ans. Dr. Morton I first saw in 1846, at the house of Dr. Warren, in Park street, I think, between 1 and 2 o'clock. He came there to show me an artificial palate, I being at that time interested in operations for fissure of the palate. Sometime afterwards he came there again, about the same hour, to exhibit to Dr. John C. Warren and myself some artificial teeth, which he said were constructed on a new plan. Sometime after that, in

Circumstances connected with the first operation at the hospital. October, Dr. Warren informed me that Dr. Morton had been there and informed him that he had discovered an agent for preventing pain, I think he said, in dental operations—in dental or surgical operations—and requested Dr. Warren that he would afford him an opportunity of trying it in a surgical operation. Dr. Warren, after some questions on the subject, promised that he would do so. On Tuesday, which I think was the 13th of October, and after the surgical visit at the hospital, a patient was brought up into the operating room for the purpose of having an operation performed. Dr. Warren then, apparently remembering his promise to Dr. Morton, said, "I now remember that I have made a promise to Dr. Morton to give him an opportunity to try a new remedy for preventing pain in surgical operations,"

and asked the patient if he should like to have the operation done without suffering. He answered that he should. The operation was therefore deferred until Friday, the 16th of October, when the ether was administered by Dr. Morton, and the operation performed by Dr. Warren. On Friday, being called to Watertown to perform an important surgical operation there, I was prevented from witnessing the operation at the hospital, but the facts in regard to it were stated to me, the same day, by Dr. Warren. On the following day, a woman had the ether administered to her, and, being made insensible, by the request of Dr. Warren, Dr. Hayward performed the operation, removing a tumor from her shoulder. The ether was administered in this case by Dr. Morton. I was present. The effect of the ether was fully successful. The next time that I saw the ether given was in the early part of November, the seventh day, at which time Dr. Hayward amputated a limb, the patient being made insensible by the ether administered by Dr. Morton. Dr. Warren also removed a portion of the jaw from a female, who was also rendered insensible by the ether, also administered by Dr. Morton. The next case was a patient of my own, November the twelfth, in which the patient was entirely unconscious, while under the influence of the anæsthetic agent given by Dr. Morton. This was a female at the west end of Boston, in the vicinity of Myrtle street. The operation was the removal of a tumor from the arm. I believe that was the first private operation performed with ether, so far as my knowledge goes. The next time was on the twenty-first of November, on a patient from whom I removed a large tumor of the thigh at the Bromfield House. The ether in this, as in the other cases, was given by Dr. Morton. From this time until March, I had a series of surgical operations in private practice, in many of which Dr. Morton was present and administered the ether. On the sixth of March, I assisted Dr. Brown in an operation for dividing the tendons in a case of club foot, on a child in Essex street. The child was very timid, and resisted inhaling the ether from the ordinary apparatus which was then used. We were about relinquishing the attempt at etherization, when I proposed pouring the ether on a sponge and placing it over the child's mouth. This was done, and with success, the child being etherized as completely as with the apparatus. On the fourteenth of March, I assisted at the hospital in an operation performed by Dr. Hayward for a *vesico vaginal fistula*. The patient resisted the inhalation from the ordinary apparatus. I, by permission of Dr. Hayward, moistened a sponge with ether and placed it over her mouth; in five minutes she became insensible. In the operation, which lasted about twenty minutes, and which is, under ordinary circumstances, an extremely painful one, it was performed without experiencing the

2d operation.

3d, the amputation.

4th, removal of jaw.

5th, private operation.

6th, operation at Bromfield House.

7th, series of operations.

8th, club foot on a child.

9th, vaginal fistula operation lasting 20 minutes.

slightest degree of pain. Shortly after this, the sponge was substituted at the hospital for the ordinary apparatus, and has been used there ever since. The sponge used in the early cases is now preserved in the hospital in the case with the surgical instruments. The use of the sponge produced a revolution in the use of ether, and was used everywhere. After the use of the sponge, Dr. Morton ceased to administer the ether, and, sometime previously to this, it had been administered at the hospital by some one of the surgeons, or the house surgeon.

7th. Was there another experiment at the Bromfield House, besides the one you have mentioned? What was it, and who administered the ether?

Another
operation at
Bloomfield
House.

Ans. There was another operation at the Bromfield House. It was on the thirteenth day of December. I think Dr. Morton administered the ether. The case was the removal of the end of the bone of the middle finger of the right hand. This was after the operation I have mentioned before.

8th. Do you know of any other origin of the substitution of a sponge for the apparatus, except what you have named?

Ans. I do not. Some gentleman in Europe discovered the same thing about the same time, before he could have heard of my using it. It was Dr. Smith, of Cheltenham.

Use of the
sponge not
suggested
by Jack-
son.

9th. Did you ever hear that it was so substituted by the advice of Dr. C. T. Jackson?

Ans. I never did.

10th. Did you ever know Dr. C. T. Jackson to be present at an experiment with ether at the hospital?

Ans. I have, a number of times.

11th. When first?

Ans. I don't remember the precise time.

12th. Was he present at either of the first three occasions?

His first ap-
pearance at
Bloomfield
House 7th
November,
simply as a
spectator.

Ans. He was not present on the seventeenth of October, or the seventh of November. The first time I knew him to be present at any operation, was at the first operation at the Bromfield House. This was the twenty-first of November.

13th. What part, if any, did he take at this operation? How, if any, more than other spectators?

Ans. So far as I remember, it was simply as a spectator.

14th. What is your experience and opinion as to asphyxia in the use of the apparatus and of the sponge?

Ans. I think it is less likely to be produced by the sponge than by the apparatus. It appears to me that asphyxia was rather more frequent when the apparatus was used than with the use of the sponge. The cases were easily remedied when we had the apparatus. There were some one or two severe cases.

15th. Was avoiding asphyxia the object in substituting the sponge for the apparatus, or a result obtained since?

Ans. That was not the object, but it was observed since. The principal object of the change was a matter of convenience.

16th. Does it still occur under the use of the sponge?

Ans. Occasionally it does.

17th. Did you ever know Dr. Jackson to take any part in the administration of ether?

Ans. I don't remember that I ever did.

18th. At the times when he was at the hospital, as you have said, did he take any part in the administration of the ether?

Ans. Not as far as I remember; still, he may have done so.

19th. Please state the first time that you knew anything of Dr. Jackson, in connection with the use or discovery of the use of ether?

Ans. I think it was a week after the first trial. Dr. Warren told me that Dr. Charles T. Jackson had informed him that he had suggested the use of ether to Dr. Morton.

20th. Please to state the first instance of your personal knowledge, if any, on that subject.

Ans. My impression is, that Dr. Jackson gave me the same information about a fortnight after that.

21st. What was the extent of the claim which he then made?

Ans. I do not remember.

22d. Was the information you received from Dr. J. C. Warren the first time you heard of Dr. Jackson's connexion with this subject?

Ans. It was.

23d. Did Dr. Jackson, in his conversation with you, claim to have suggested to Dr. Morton to try ether, or did he claim to have previously made the discovery and communicated it, as a discovery, to Dr. Morton—or how otherwise—to the best of your knowledge?

Ans. I don't remember exactly, but I think it was the former.

24th. What is your experience as to nitrous oxide gas, as an anæsthetic agent?

Ans. I have never seen it used but once for that purpose, and my impression then was, that it was not to be compared in its effects with sulphuric ether. This case was at the hospital, as an experiment, and we have never used it since. It was some time in 1848.

25th. What is your experience and opinion as to chloroform, as an anæsthetic agent?

Ans. I think it less safe than ether, and less manageable.

26th. Have you, for the last six years, been engaged in an extensive private surgical practice?

Ans. I have.

27th. What is the result of six years experience in the use of ether, as to safety, certainty, and completeness?

Never knew Jackson to take part in administering the ether.

Never heard of Dr. Jackson's having any connexion with it till a week after the trial at the hospital.

Impression that Jackson only claimed to have suggested to M. to try ether. See also Chandler and others ad idem.

Ans. I have employed, principally, the last four years, chloric and sulphuric ethers, and I consider, so far as my experience goes, that they are safe, certain, and efficient in their operations.

Opinion
as to ether.

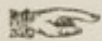
28th. In the cases where Dr. Morton administered the ether, how did he conduct the administration, as regards care, skill, and success?

Ans. He administered it very carefully and judiciously, and effectually.

Adminis-
tration of it
by Morton,
careful, ju-
dicious and
effectual.

29th. What are the respective advantages and disadvantages of sulphuric ether, chloric ether, and chloroform, as anæsthetic agents?

Ans. Sulphuric ether is liable to produce more irritation about the air passages than the two other substances; the odor of it is not so agreeable, and is liable to pervade the apartment, and to be perceived in the clothes and breath of the patient for a long time. Chloroform is more agreeable to the taste, less liable to produce irritation, and much more powerful in its action than the other two substances—that is, acts with more rapidity, but is liable to the objection of not being so easily and safely managed. Chloric ether appears to me to combine the agreeable properties of the chloroform, with the safety of sulphuric ether.



30th. By the recipe of what chemist is the chloric ether made which is now in general use?

Ans. Dr. Hayes's.

Cross-interrogatories by A. Jackson, jr., esq., counsel for Dr. Charles T. Jackson.

Morton
administer-
ed in eight
or ten of
witnesses'
private
operations,
and four at
hospital.

1st. At how many of your surgical operations, in private practice, did Dr. Morton attend and administer the ether?

Ans. I should say about eight or ten. I am not perfectly certain on that point.

2d. At how many at the hospital did Dr. Morton attend, to administer the ether?

Ans. I remember four.

3d. At the operation spoken of in answer to the 6th interrogatory, when Dr. Brown performed an operation in a case of club foot, do you remember who were present when the operation was performed, and who administered the ether?

Ans. I have understood, within the last few days, that Dr. Charles T. Jackson, Dr. Morland, and Dr. Buckminster Brown were present, but that Drs. Jackson and Morland did not come into the room until after the patient was etherized. They were not present in the room until after the patient was etherized, on account of the sensitiveness of the patient. I administered the ether on that occasion.

4th. At the operation at the Bromfield House, on the 21st of November, was the patient's name Williston?

Ans. I think it was.

5th. Do you remember that you administered the ether in Williston's case, on the 21st of November, and that Dr. Morton came in after the etherization was complete?

Ans. No, I did not administer it; Dr. Morton administered it.

6th. Is this the note by which you notified Dr. Jackson of this operation?

Ans. It is. It is as follows,—“Dear sir: The operation will be to-morrow at nine, at the Bromfield House. Patient's name is Williston. Very truly yours,” signed, “J. MASON WARREN.”

7th. Whether, or not, chloric ether is a solution of chloroform in alcohol?

Ans. As to the true chemical composition of chloric ether, I am not prepared to give an opinion.

8th. Whether you recollect that Dr. C. T. Jackson, soon after the announcement of etherization, brought bags of oxygen gas to the hospital? If aye, for what proposed purpose were they to be used?

Ans. I think that Dr. Jackson did bring oxygen gas to the hospital to administer to patients who had been etherized, in case asphyxia should occur.

9th. Whether, or not, before Dr. Jackson so brought the bags of oxygen, cases of asphyxia has so occurred that means were sought for a speedy recovery of patients so affected?

Ans. There had been one or two cases of asphyxia about the period when Dr. Jackson brought the oxygen gas to the hospital, and I think the question had arisen as to the best means of obviating this accident.

10th. Whether you remember that in the fluid (at first its substance being unknown) used at the hospital for inhalation, in October, 1846, there was some aromatic substance mingled with it? If aye, what was it?

Ans. I do not remember it. I did not perceive it.

11th. Was it anywhere taught, anywhere laid down in the books, before September 30, 1846, that inhalation of pure sulphuric ether could be attended with safety to such an extent as to produce insensibility to pain?

Ans. No.

12th. Whether, or not, in your opinion, the purity of the sulphuric ether from alcohol and acids, and the due admixture of atmospheric air, are not among the most important particulars embraced in the discovery of etherization?

Ans. I should think they were. Dr. Jackson once or twice in

Safety,
&c., not
taught or
laid down
in books
before '46.

the course of the first two or three months after October, 1846, mentioned to me the importance of it.

13th. So far as you know, from the time there was any question made, raised, or discussed, on this point, has not Dr. Charles T. Jackson, always, on all fit occasions, stated and declared himself to be the discoverer?

Ans. He has.


14th. Whether, or not, any person can be the author of a discovery in the inductive sciences, without either originating any new idea, or devising the means of establishing the truth of a conjecture, whether more or less probable, previously brought to view by another person?

Ans. I should think they could not.

15th. Whether, or not, you are familiar with the facts and early history of the publication of etherization, in October, 1846, and the winter and spring following?

Ans. I am, with many of them.

16th. Whether, or not, in these different times that you saw Dr. Morton, his knowledge, or want of knowledge, came under your observation? If aye, what was his knowledge of sulphuric ether and the various kinds of ether, and of scientific or chemical matters?

 Ans. He did not express any opinion on the subject.

17th. Whether, or not, you can specify any new idea, connected with the discovery of etherization, first originated by Dr. Morton, or any new experiment devised by him, by which that discovery was established?

Ans. I can simply state that Dr. Morton first administered the ether, and did it safely and effectually.

18th. Whether or not it frequently happens, in dental and surgical operations on etherized patients, that, after total insensibility has passed away, there is a period of consciousness, while there is no sense of pain?

Ans. There is. People frequently become conscious as etherization passes off, while they still remain insensible to pain.

19th. Whether you recollect that the operation of November 7th, the amputation was to have been performed on Saturday, October 31st, and was postponed to Saturday, November 7th?

Ans. I do not recollect.

20th. Is not the etherized state generally one of agreeable dreams? Is there any stupor or congestion of the brain?

Ans. It usually is one of agreeable dreams. I should think in some cases there was stupor, with congestion of the brain.

Direct resumed by Mr. Dana.

1st. Do you recollect Dr. Jackson being present at the operation for the club-foot, independently of what you have been lately told?

Ans. I do not.

2d. By whom, and when, were you told this?

Ans. By Dr. Brown; within a few days—since I finished my direct examination.

3d. Did Dr. Jackson take any part? In particular, did he make any suggestion about the sponge?

Ans. He did not.

4th. Was the note, mentioned in your answer to the 6th cross-interrogatory, written voluntarily, or in reply to a request?

Ans. So far as I remember, it was voluntarily.

5th. Were there other, and how many, gentlemen invited and present?

Ans. There were eight or ten others invited and present.

6th. When did Dr. Jackson bring the bag of oxygen? Was it ever used?

Ans. I do not remember when he brought it. It was never used to my knowledge.

7th. Please refer to your answer to the 13th cross-interrogatory. Do you know of his having made any claim to this discovery before his conversation with you, to which you have referred?

Ans. As I have stated before, Dr. Warren first informed me. I had no other knowledge previously to Dr. Jackson's conversation with me.

8th. Did you ever know, and when first, that Dr. Jackson claimed to have been the sole discoverer, some years before, and to have communicated this, as a discovery already made, to Dr. Morton?

Note this.

Ans. No; I know it now from his publications.

9th. Did you at first understand that his claim was to have suggested the use of ether, which led to the discovery in Dr. Morton's hands?

And this.

Ans. I so understood it, as I have stated before, from Dr. Warren's information, and from Dr. Jackson's conversations afterwards with me. In my conversations with Dr. Warren and with Dr. Jackson, I never understood it to be more than a suggestion, so far as I remember. I never understood that he had discovered it previously.

10th. If a person is so far etherized as to be insensible to pain, is he in so sane a state that you trust to what he says about himself?

Ans. To a limited extent.

11th. Do you know, of your own knowledge, of any case of a

person so far etherized as to be insensible, and yet able to pursue a rational inquiry, or to note and observe sensation correctly?

Ans. I do.

12th. How far insensible, and what proof of it?

Ans. One of these cases has been published in the Boston Medical and Surgical Journal, in March, 1847. The patient recovered his consciousness soon after the operation had commenced, sufficiently to inquire how it was progressing, requesting that it should not be hurried, but that the operation should be thoroughly done. This being completed, and the wound dressed, he said that he had been well aware during a greater part of the time what was being done, but felt no more sensation than what would have been experienced from an ordinary examination.

13th. On the 7th of November, 1846, were there more than two operations performed at the hospital under ether?

Operation
on a child.

Ans. There was a third operation performed by myself, on a child, for hare lip.

14th. Was this person you have mentioned, in answer to the 12th direct-resumed, in a natural and sane state while insensible, or only in an active state of mind and senses?

Ans. I am not prepared to say whether or not he was in a natural and sane state.

15th. Is insensibility to pain to a moderate extent, and how far a new discovery, in case of drugs, vapors, gases, and liquors?



Ans. No. Operations have been performed where persons were insensible from the effects of spirituous liquors.

Cross resumed by Mr. Jackson.

1st. Whether you remember that, at the time Dr. Jackson brought the bag, or bags of oxygen, the patient then was not asphyxiated, and that, on that occasion, there was no need of any remedies or restoratives, to induce a natural state in the patient?

Ans. I think he was not asphyxiated, so that it was not required.

2d. In your answer to the 3d direct-resumed, it is said that Dr. Jackson did not suggest the use of the sponge. Could he have, on the occasion referred to, suggested this? On account of the sensitiveness of the patient, did gentlemen come up after the etherization was completed?

Ans. He did not suggest it on this occasion. Gentlemen did come up after the etherization was complete.

3d. In reference to the 8th and 9th direct-resumed, will you be kind enough to state what it was that Dr. Warren and Dr. Jackson stated in their conversations with you?

Ans. I have already stated that Dr. Warren told me that Dr. Jackson informed him that he had suggested the use of the ether

to Dr. Morton. So far as my memory serves me, the same information was given by Dr. Jackson to me.

J. MASON WARREN.

COMMONWEALTH OF MASSACHUSETTS, { ss :
Suffolk County,

We certify that the foregoing is a true copy of the deposition *in perpetuum* of J. Mason Warren, taken before us, upon the petition of William T. G. Morton, under the statutes of this Commonwealth.

GEO. T. CURTIS,
J. P. PUTNAM,

Two Justices of the Peace and Counsellors at Law.

BOSTON, January 6, 1852.

UNITED STATES OF AMERICA :

DISTRICT OF COLUMBIA, { ss :
County and City of Washington,

Be it remembered that on this fourteenth day of January, in the year of our Lord one thousand eight hundred and fifty-three, I, William B. Webb, a Commissioner duly appointed by the Circuit Court of the District of Columbia, under the laws of the United States, to take affidavits and bail, did call and cause to be and appear personally before me, at my office in the aforesaid City of Washington, Josiah D. Whitney, a witness to be examined on the part and behalf of William T. G. Morton, one of the parties to a certain suit or matter of controversy now depending and undetermined, Dr. Charles T. Jackson being the opposing party in said suit or matter of controversy, and the said

Josiah D. Whitney having been first duly cautioned and sworn to tell the truth, the whole truth and nothing but the truth, did, in reply to interrogatories propounded by James M. Carlisle, Esq., counsel for William T. G. Morton, depose and say as follows :

1st. Please to state what is your profession, and what your employment at this time, and of what scientific bodies or societies, if any, are you a member ?

Ans. I am a geologist and chemist by profession. I am at present in the employment of the United States, as United States Geologist, and have been since 1849. I am a member of a number of societies—of the American Academy of Arts and Sciences, the Academy of Natural Sciences of Philadelphia, and several others.

2d. Are you acquainted with Dr. Charles T. Jackson, of Boston? If yea, how long have you known him, and were you, at any time,

and when, and in what capacity, connected with his laboratory, and were you at any time and when a boarder in his house?

This shows that the witness was in such circumstances towards Dr. J. as to have the means of knowledge as to his alleged discovery, &c. prior to Dr. Morton.

Ans. I am acquainted with Dr. Charles T. Jackson. I was quite intimately associated with Dr. Jackson from early in the summer of 1840, when I first became acquainted with him, until May, 1842. During this time I was constantly with him either as his assistant on the geological survey of New Hampshire, or as a pupil and boarder at his house, with the exception of a few months during the summer of 1841, when he was engaged in the field work of the survey mentioned. From October, 1841, to May, 1842, I boarded at his house, and was engaged in chemical investigations in his laboratory, and assisted him in the preparation of his lectures. During the summer of 1845, I made a journey to Lake Superior and back in company with Dr. Jackson, and after our return we were together a good deal, until December 1st, 1845.

3d. Have you any knowledge of the circumstances of the accidental breaking of a bottle containing chlorine in his laboratory, and of any injury to Dr. Jackson by such accident, and of the remedy or remedies used by him, and particularly as to the use of ether? State all the facts which you may remember in that behalf.

Ans. I have no recollection of any accident of the kind.

3d.^a Did you hear Dr. Jackson, or any person connected with his laboratory, or in his family, speak of such accident at or about that time, or while you were boarding with him, or in his laboratory?

Is it possible that he should have been ignorant of this fact, even as Dr. J. alleges?

Ans. I have no recollection of anything of the kind.

3d.^b If any such accident had occurred, do you think you would have known it, or heard of it?

Ans. I have no doubt I should, if it had been a serious one, or attended with such peculiar circumstances as those mentioned by Dr. Jackson in his statement to the Hon. W. H. Bissell, Chairman, &c., and in his memorial to Baron Von Humboldt.

4th. Where were you during the fall and winter of 1846 and spring of 1847? Had you any correspondence with Dr. Jackson during that time?

Ans. I was in Germany. I corresponded with Dr. Jackson during that time.

5th. Produce and annex the original letters of Dr. Jackson to you in the latter part of 1846, after the discovery of etherization became public; particularly, any letter from him first claiming such discovery, and any letters prior thereto and subsequent to the 30th of September, 1846.

Ans. I have produced them and annexed them. They have been by the commissioner marked "Exhibit A., W. B. Webb, U. S. Commissioner;" "Exhibit B., W. B. Webb, U. S. Commissioner;" "Exhibit C., W. B. Webb, U. S. Commissioner," in my presence.

6th. Do you know the handwriting of Dr. Jackson? Have you seen him write? In whose hand-writing are the letters produced with your last answer, and are they not wholly in such hand-writing?

Ans. I do know his hand-writing and have seen him write, and have no doubt that they are wholly and entirely in his hand-writing.

7th. Do you know George O. Barnes? Was he at any time an assistant, or otherwise employed by Dr. Jackson?

Ans. I know him. He was employed by Dr. Jackson as an assistant on the geological survey of Lake Superior, and had been, before that time, a pupil in his laboratory at Boston.

8th. Had you at any time, and when, a conversation with said Barnes touching his testimony in support of Dr. Jackson's claim to the discovery of ether? If yea, when and where, and what did said Barnes say touching his said testimony?

Ans. I had frequent conversations with Mr. Barnes during the summer of 1847, on the subject of the discovery of etherization, and in one of those conversations he admitted that his testimony had been re-written for him by another person, and that he had "testified to anything that Dr. Jackson wanted him to."

Note this,
as to Dr.
Jackson's
principal
witness.

JOSIAH D. WHITNEY.

Sworn to and subscribed before me this 14th day of January, 1853.

W. B. WEBB,
U. S. Commissioner.

I, Robert H. Eddy, of Boston, Civil Engineer and Solicitor of Patents, of lawful age, being first duly sworn, depose and say, in answer to interrogatories by R. H. Dana, jr., esq., counsel for Dr. Wm. T. G. Morton:

1st. What is your residence, and how long have you resided there? What is your office or occupation, and how long have you been engaged in it? How largely?

Ans. My residence is the city of Boston, of the State of Massachusetts, and I have resided in such city all my life. My professional occupation is that of a civil engineer and solicitor of patents, and I have been extensively engaged in such business upwards of twenty years.

2d. How long and how intimately have you known Dr. Charles

T. Jackson? State particularly what had been the relations between yourself and Dr. Jackson before September, 1846?

Relations
witness
with Dr.
Jackson.

Ans. My first acquaintance with Dr. Charles T. Jackson took place in the early part of the year 1836. At that time I was directed by the late Hon. Samuel T. Armstrong, Mayor of Boston, to proceed and survey certain lakes or waters, and report on the cost of their introduction into the city. I employed Dr. C. T. Jackson to make sundry chemical analyses of such waters, and this was the cause of our personal acquaintance. Soon after the same, Dr. Jackson hired a house adjoining one in Green street, then occupied by my father, Caleb Eddy, esq., with whom I resided. This produced an acquaintance between our respective families which was of a very intimate nature for several years, and up to the time of the ether discovery. Dr. Jackson and myself, during this period, were on very strong friendly terms. I entertained for him the purest feelings of amity, and was ever ready to do him, or any member of his family, any favor in my power to bestow. I have reason to believe I had with him the position of a confidential and very intimate friend.

3d. How long and how intimately have you known Dr. W. T. G. Morton? What was the occasion of your first acquaintance with him?

Relations
with Dr.
Morton.

Ans. I never had anything more than a slight acquaintance with Dr. W. T. G. Morton previous to October, 1846. He was a boarder in the family of Dr. Jackson when I first met him, and my impression is that it was while Dr. Jackson resided in Somerset street, and not a great while before October, 1846, that I first saw Dr. Morton. I occasionally and rarely met him during my visits to the family of Dr. Jackson. I have no recollection of the first time I saw Dr. Morton, nor the occasion of my first acquaintance with him. I have never had much, if any intimacy, other than of a business character with him, and have rarely met him during the past four or five years.

4th. Please to state, fully, particularly, and in order of time, all your knowledge respecting the ether discovery made known in the fall of 1846?

Ans. In replying to this interrogatory, I will endeavor to state facts according to the best of my present recollections, and, in order to refresh my memory, I will refer or have recourse to minutes which I wrote of many transactions in relation to the ether discovery which came under my observation during a few months after its announcement. The said minutes were made very soon after these occurrences happened, and while they were fresh in memory.

Within a few days after September 30, 1846—I think the first of October—Dr. Morton called on me at my office, stated to me that he had made an important discovery, by which he could extract teeth without pain, and desired to know from me whether it could be secured by a patent. After replying to him that he must inform me the nature of it before I could give him any definite opinion, he described to me that he used sulphuric ether, by administering it by inhalation in a state of vapor. He informed me that he had extracted a tooth without the person suffering any pain; that the man, after awaking from the sleep in which he had been put, found, to his astonishment, his tooth lying upon the floor. I stated to Dr. Morton that I doubted whether the discovery was really patentable, but that I would consult the law and such decisions as I could, and advise him as to the result. After this, I saw Dr. Morton not more than once, I think, until Wednesday, the 21st day of October. In the meantime, I had seen several statements in the newspapers relative to the experiments performed at the hospital, and had understood from the family of Dr. Charles T. Jackson that he (Dr. Jackson) had some connection with Dr. Morton in making the discovery. My reflections on the subject had led me to the belief that a patent could be obtained. Accordingly, on the 21st day of October I so informed Dr. Morton, and stated to him that I had understood that Dr. Jackson had rendered him some assistance in making the discovery. I represented to Dr. Morton that, although I considered it possible to obtain a patent, I did not by any means deem it certain; but that, by suitable and proper exertion, it seemed to me that it could be had. Feeling desirous of benefiting Dr. Jackson, and perceiving that I could do so by being interested in the patent, I suggested, in view of the professional skill, experience, and services I might be obliged to render, that the patent, if taken out, should be shared equally between Dr. Jackson, Dr. Morton, and myself. Dr. Morton replied that he did not know why Dr. Jackson should have any interest, as he had an understanding with Dr. Jackson to fully satisfy him for any advice he might have rendered him. He further said that if I would obtain a patent, he would give me one quarter part of it for my services and expenses.

In order to satisfy myself as to the position of Dr. Jackson in relation to the discovery and the understanding between him and Dr. Morton, I called on Dr. Jackson during the evening. I learned that he was then in the Howard Athenæum. I immediately went into the theatre, and, as soon as I could obtain a good opportunity, went into the parquette, where Dr. Jackson and his friends were sitting. I informed him that I was desirous of having an interview with him on a matter of importance, and would call on him early the next morning at his office. Accordingly, I called

History of witness's connection with both parties, touching this discovery.

Put this by the side of the assertion that Dr. M. did not claim the discovery till several months after.

This shows how Dr. J. became connected with the discovery, "understood from the family of Dr. J." that he had "SOME CONNECTION" with the discovery, not that he had discovered it four years before.

Witness seeks Dr. Jackson.

on him the following morning. I cannot recollect the precise conversation which passed between us at this interview, but the substance of it was, that Dr. Jackson informed me that, by the laws of the Massachusetts Medical Society, he would be prevented from joining with Dr. Morton in taking out a patent, as he would be liable to expulsion from the Society were he so to do. He stated that he intended to make a professional charge of \$500 to Dr. Morton for the advice he had given him, and that Dr. Morton had assented to this. That he did not wish his name connected with that of Dr. Morton in any way. That Dr. Morton might take out a patent if he desired it, and do what he pleased with it.

This is an explicit admission that Dr. J. had tried no experiment, and that his "CONNECTION" with the discovery was no more than Dr. M. has always admitted. I made inquiries as to the assistance rendered Dr. Morton, and asked Dr. Jackson whether he had ever tried any experiments to practically demonstrate the fact that the inhalation of ether would prevent pain during a surgical operation. He informed me that he had not, [I was fully persuaded from the conversation I had *that Dr. Jackson thought the whole matter of little value. He supposed, as he led me to believe, that Dr. Morton might realize something from it in his business, and stated his willingness that he should do what he pleased with it so long as he did not couple his (Dr. Jackson's) name with it.] (The part in brackets objected to as mere opinion of the witness. J. P. P.)

I subsequently inquired of Dr. Morton whether he had agreed to give Dr. Jackson the sum of \$500 for the assistance rendered, as well as for all the doctor's interest in the discovery. He replied that such was the case, and that he had agreed to pay him at the rate of 10 per cent. on sales of licenses, until the \$500 was paid.

Yet the argument and report for Dr. J. harp on the failure of Morton to speak of such experiments by him, when there was no occasion for it. Dr. Jackson, in our conversation, never mentioned to me of his ever having made any researches or experiments touching the inhalation of ether as a preventative of pain in surgical operations, the first information I ever had of such being from reading his publication in the Boston Daily Advertiser of March 1st, 1847. The first information I had of Dr. Jackson having performed any experiment in 1842, was on reading Dr. Jackson's statement in Dr. Martin Gay's pamphlet, published about May 20th, 1847.

On Friday evening, October 23d, I visited the "Boston Theatre" in Federal Street, and there saw the Keans in the play entitled "The Wife's Secret." After the performance of said play was concluded, I returned to my residence and there found Dr. Jackson and wife in the front drawing room, in conversation with my parents. At this interview, while conversing on matters pertinent to the discovery, I urged Dr. Jackson to associate with Dr.

* This is important, showing that Dr. Jackson had not four years before do even now, any idea of the important discovery.

Morton, on the ground that I was confident he was mistaken in his views of what would be the action of the Medical Association, and that by joining in the patent, he would of a certainty obtain credit as a joint discoverer or inventor; whereas, should he not do so, he might lose all credit as in the case of the Magnetic Telegraph discovery, which I understood from him he had suggested to Professor Morse. I also urged on him the pecuniary advantages which would probably result to him. His wife joined with me and said he always threw away every chance of pecuniary profit when it offered. [At this time, Dr. Jackson appeared to have so little confidence in the discovery that] he said to me that, if Morton would give him his professional charge of \$500 for the advice rendered him, he might take the whole of it and do what he pleased with it.

This is utterly inconsistent with Dr. Jackson's present position.

(The part in brackets objected to as the mere opinion and supposition of the witness. J. P. P.)

The next day, or within a few days after, I called on Dr. Augustus A. Gould, to learn from him the nature of the rules of the Medical Society. He showed me the By-laws, in which I found that they only excluded a member from dealing in *secret remedies*. I saw at once that there could be no objections to the patenting by Dr. Jackson of any invention he might make, and Dr. Gould coincided with me in my views.

After preparing the specification, I submitted it to Dr. Jackson, I took it to his house and read it to him. He approved of it, in regard to the different kinds of ether mentioned in such specification. I received no information or communication whatever from Dr. Jackson. I have the impression that, at some interview with him, before I commenced to write the specification, I did inquire of him respecting the manner of disguising the smell of ether by perfumes or essential oils, and that he informed me that this could be effected by mixing the ether and essential oil with water, and, by the process of washing, the impurities would subside in the water, while the perfumed ether would rise on the surface. I do not state it for a fact, that I derived even this information from Dr. Jackson, for it is possible that it might have been from Dr. Morton; but the impression is on my mind that it was from Dr. Jackson.

The specification, as prepared by me and read to Dr. Jackson, was not changed by any suggestions of Dr. Jackson. In fact, whatever information I wanted in regard to the mode of using the ether, I previously derived from Dr. Morton. The remarks in the specification respecting ——— or other ethers besides the sulphuric, were made by me after consulting certain works on chemistry which were in my library, I recollect perfectly that after, or just before commencing to write the specification, it occurred to

me that some of the other ethers might possess the narcotic properties of the sulphuric, and that, if I should confine the process to the use of the latter, some person, by simply substituting one of the others, might evade the patent. I therefore examined several works on chemistry, in regard to the modes of preparing ethers, particularly consulting the work entitled Brande's Chemistry; and, after deriving information from such, I prepared the specification so as to embrace in it other ethers besides the sulphuric.

This is competent and forcible, being under oath, touching Dr. J.'s unwarrantable attacks on this witness.

After reading the specification to Dr. Jackson, I had it copied and prepared so as to be executed by the parties. I recommended to Dr. Morton to allow me to insert in the agreement a bond to be given Dr. Jackson by him, ten per cent. on *all sales* of licenses, instead of ten per cent. until the amount paid would reach \$500, and I advised him to be liberal towards Dr. Jackson, both in giving him credit and a chance of profit. [In this I was governed by a sincere desire to benefit Dr. Jackson. I also supposed it would be for the interest of Dr. Morton to do so, as I presumed Dr. Jackson might possibly improve the article used, or produce a better quality of ether than could be found in the market. During the whole of the transactions relative to the procuring of the American patent, I was governed by a strong feeling of interest for Dr. Jackson. I possessed a desire to obtain for him as much credit and pecuniary advantage as I could consistently.] To benefit him, if possible, was a great inducement to me to become interested in the patent, and therefore depart from a rule I had long before adopted and rigidly complied with; such rule being, never, while exercising my peculiar profession as a Solicitor of Patents, to be pecuniarily interested in any patent, or own any part thereof. That such was a rule of mine can easily be substantiated by reference to the specification of a patent granted on May 10th, 1844, to Denning Jarves and the New England Glass Company. I had a legal right to be interested in any patent, but I conceived that, were I to make it a practice to do so, as some other solicitors of patents were in the habit of doing, I might be subjected to improper suspicions, or my clients might infer that, while interested in any invention, I could not give them correct advice on any of like nature. I therefore declined all such interest. Of the expediency of such, I must confess, I at times thought I had some doubts. Circumstances, however, led me to waive my feelings in this instance, and, under the belief that, by being interested in the patent, I could be of service, not only to Drs. Jackson and Morton, but, I may also say, to others, and particularly to Dr. Jackson, I became involved in the matter, beyond what, perhaps, I should have done on further or more mature reflection. I certainly would never have had anything to do with

it, could I have foreseen the trouble I afterwards experienced, and the ill treatment I met with from Dr. Jackson and his associates or legal advisers.

(The part in brackets objected to as witness's desires and suppositions. J. P. P.)

On Tuesday morning, the twenty-seventh of October, Drs. Morton and Jackson executed the papers for the American patent. While Dr. Jackson was passing from his office to my own, I told him that I had seen Dr. Gould and he had shown me the laws of the Medical Association; that Dr. Gould's opinion and mine coincided in relation to what was meant by the term "*secret remedies*;" that such could not mean *patented* ones, as they were not secret, the specifications of such being inscribed on the books of the Patent Office, and free to be examined by any person. He replied, "Well, if Dr. Gould thinks so, that settles the matter with me; I have no objections to signing the papers with Dr. Morton." I think I give the exact words made use of by him.

After reaching my office, he on his part, signed and executed the papers necessary to enable me to procure the patents in the name of Dr. Morton. The petition for this patent was in the usual form, [and I have no reason to believe, and I do not now believe it was ever seen by Dr. Jackson, until he saw and signed it at my office.]

(The part in brackets objected to as the belief and opinion of the witness and as immaterial. J. P. P.)

I believe it was a printed form, such as I generally used, and was filled up to meet the case, and had the usual printed power of attorney attached. The files of the United States Patent Office, however, will settle this question, as well as the character of the power of attorney. Dr. Jackson also signed an assignment to Dr. Morton of all his right and interest whatever which he possessed in the invention or discovery, which assignment will be found on record in the United States Patent Office. [I am under the full and entire belief that he never saw this instrument until he visited my office to execute the papers. There existed no special necessity for showing it to him before, as he had agreed to assign his interest to Dr. Morton, and the assignment only required to be prepared to meet the case. Dr. Morton being to give him a bond to pay him in accordance with their agreements.]

(The part in brackets objected to as the opinion of the witness, and not testimony as to fact, and as immaterial. J. P. P.)

I have lately been shown the printed form of letter, dated Dec. 18th, 1851, and written by Dr. Jackson to Hon. Wm. H. Bissell, chairman of the select committee on the ether discovery. In that communication, I find the following words, viz:

"Finding that I was in great danger of losing the credit of my discovery, I was foolish enough to listen to the advice of the *patent solicitor, Eddy*, whom I did not at the time suspect of being interested with Morton in his attempts to rob me of my discovery, and by his pretended friendly advice I allowed my name, under the following protest, to be used in procuring letters patent. This document I found was not the one that Mr. Eddy actually sent to the Patent Office, and that discovery led to the investigation proving that Mr. Eddy was a co-partner with Mr. Morton.

"The protest dictated by me, and written in my presence by Mr. Eddy, was as follows: *Dr. Jackson is extremely unwilling to take out a patent for anything applicable to the relief of human suffering; but in order to secure the honor of this discovery, and to conform to the laws of his country in transmitting his rights to another, hereby consents, &c.*

"Under his usual power of attorney, Mr. Eddy altered this as follows, and without my knowing it at the time of signing it. 'Dr. Jackson, willing to benefit Mr. W. T. G. Morton, assigns to him his right to the interest, and requests the Commissioner of Patents to issue the patent in the name of W. T. G. Morton,' or words to the same effect. Trusting that my injunctions had been faithfully carried out in the papers, I signed them without reading them, and that was the mystery of my name having been associated with that of Mr. Morton in the patent so improperly obtained."

This is
very original—the
"opinion" of the witness as to his own motives!

[Such an attempt of Dr. Jackson to make it appear that I improperly made an alteration in a paper, I can only characterize as base and calumnious, and utterly void of truth. The mere *idea* of such a course never had a moment's existence in my mind, and I must confess it was with the sorrow and surprise that I found Dr. Jackson obliged to resort to such means to support his claims.]

(The part in brackets objected to as opinion of witness, and argument, and not testimony as to any fact. J. P. P.)

In regard to the "*protest*" referred to by Dr. Jackson, I have no recollection of any such, nor do I believe I ever wrote it. Among the patent papers, the assignment which Dr. Jackson gave to Dr. Morton is the only instrument, I believe, which contains the request to the Commissioner of Patents to issue the patent to Dr. Morton. I have the original rough draft of the assignment, and it was prepared without any consultation with Dr. Jackson

as to its form, and contains no such words or protest. I never had any power of attorney which authorized me, to my knowledge, to alter this paper, and the only power of attorney I ever had in relation to the procural of the patent was *signed and executed on the day of the signing of the petition and specification* for the patent, and bears even date with the *assignment*. [The truth of the statement of Dr. Jackson that I altered such a paper under a power of attorney, can be judged of when it is known that no such power of attorney ever had existed.]

(The part in brackets objected to as opinion, and not testimony of any fact. J. P. P.)

This objection is too sharp. The pertinency of the evidence must be apparent.

On Thursday, October 29, (it might have been the following day,) I had an interview with Dr. Morton at his office, in course of which the subject of securing patents in foreign countries was introduced. I informed him that, as the steamer was to sail for Europe the next Sunday, if any steps were to be taken in the matter of securing the invention abroad, they must be at once, as by the succeeding vessel, to sail in a fortnight afterwards, I feared the whole matter would become known in England. I informed Dr. Morton that the *first introducer* of the invention into England, or many other foreign countries, was the one entitled to a patent there; that any person, whether inventor or not, could obtain one in England, if he saw fit to make the communication to a person there and pay the expenses, such person receiving the communication taking out the patent in consequence of the communication and subsequently assigning it to the communicant. The result of this interview was, that Dr. Morton made me a proposition that we should expend to the amount of \$200 in taking certain preliminary measures towards securing patents in England and France. So far as right was concerned, I, Dr. Morton, or whoever else would pay the expenses, and run the risk of obtaining a patent in England, could do so through an agent there. [Knowing, as I did, that Dr. Jackson had sold to Dr. Morton all his right or interest of whatever nature, in the invention or discovery, and supposing, from what I knew of the business character of Dr. Jackson, that he would be the very last man to incur any pecuniary risk in a matter of this kind, I did not think or dream of having or being under any moral or legal obligation to have any communication with him relative to it. During the time, I was preparing the necessary papers to go out to Europe. I thought I would examine a description of the new laws of France on patents, such description being found in the Repertory of Patent Inventions, No. 20, for August, 1844. I there found that article 29 of said law provided that "the owner or the inventor of an

invention which *is secured by patent in a foreign country*, may secure a patent in France." I also found that *foreigners* may obtain patents of invention; but came to the conclusion, from other parts of the said description, that such foreigners must be *inventors* of what they would patent. Now, as the American patent *was not granted*, although it had been applied for, and Dr. Morton would be the *owner* of it *when granted*, I was fearful that Dr. Morton could not, under the position of a *joint discoverer*, and applicant for a patent, take out a patent in France. Had the patent in America been granted, there would not have been any question of the ability of Dr. Morton to take out the patent in France, provided he was not excluded from so doing by other provisions of the French law.

Dr. Jackson had assigned to Dr. Morton, all his right, title, and interest whatever, in the invention or discovery. I therefore supposed that he could have no possible objections to execute any instrument which would secure to Dr. Morton the *very right I had* before conveyed to him; and deeming it advisable, under the circumstances, to have Dr. Jackson unite with Dr. Morton, in order that no objection might arise in France from the fact that a *patent had not been granted* here; and, moreover, being very desirous of securing for Dr. Jackson, all the credit of being a joint discoverer I possibly could. I inserted his name in the papers to be sent abroad, the same as I did that of Dr. Morton.]

(The part in brackets objected to as suppositions, thoughts, dreams, and researches of witness. J. P. P.)

The documents consisted of an assignment and power of attorney (combined,) together with a copy of the American specification. On Saturday forenoon, October 31, Dr. Jackson visited me at my office. My impression is that I called on him, and we walked there together. I informed him of what I had done, and requested him to sign the papers. I read them to him fully, and clearly explained them and the object I had in view in requesting his signature. Before signing them,—it might have been after he had done so,—he said, "*I think I ought to have something for doing this.*" My reply was, "How so? Why, Doctor, you are giving up nothing of importance, are incurring no pecuniary or other risk, and, moreover, as any one can take out a patent in most of the countries of Europe, *why should you have anything?*"

He then said, "I think I ought to have something, at least, in such countries where *my name* may be used or be necessary in getting patents." I replied, "Well, Doctor, this is a subject I have no time now to discuss, I must get my papers into the mail to-day, to go by the steamer to-morrow, and, as I have much to accomplish, I must defer the matter for the present." He said,

"I do not wish to defer it, *now* is the time." I then asked him what he thought he ought to have. In reply, he said, "he thought he ought to have *ten* per cent., the same as he had in this country." "But," said I, "Doctor, you forget, you are incurring no risk, expending no money, and you must recollect that patents in foreign countries cost large sums of money. I do not perceive on what ground you have any right to such a percentage; but really, I have no time to go into the matter now; if you have any right, and we cannot agree as to what will be satisfactory, I shall have no objections to leave the matter to be decided by a proper reference." With this, he appeared perfectly satisfied.

After the papers were signed, or the business concluded, Dr. Jackson said, I had better advise Dr. Morton to license the Massachusetts General Hospital to use the discovery, the doing of which would tend to remove any prejudices against it. I replied that I would do so, and afterwards did; and not only advised Dr. Morton to such effect, but to grant every charitable hospital in the country, the free right to use the discovery for the benefit of the poor.

After this interview with Dr. Jackson, I saw and informed Dr. Morton, that, in order to satisfy Dr. Jackson, I presumed that I should be obliged to give him *something*. The next day was Sunday, November 1. As I had determined to leave the succeeding day for Washington, I called at Dr. Jackson's house in Somerset street. My intention in visiting the Doctor at this time was to endeavor in some way to satisfy him for any rights he had conveyed to me, if he had assigned any. I did not find Dr. Jackson at home, and was informed that he had left Boston the previous afternoon for Baltimore, or somewhere thereabouts.

The next day (Monday) I left Boston, in the afternoon, for Washington; after remaining there until the following Saturday, I took the cars at noon of that day for Baltimore.

On reaching the station of the Baltimore and Philadelphia railroad, I met Dr. Jackson and Mr. Joseph Peabody on their return. We journeyed together as far as Philadelphia. Soon after I had taken my seat in the railway car, Dr. Jackson left Mr. Peabody and seated himself at my side. I informed him the nature of some of my business in Washington, and stated that I should be happy as soon as possible after we should reach home to settle the matter which was still pending between us. I left Philadelphia the next morning for New York, and reached Boston on the morning of Tuesday, the 10th of November; Dr. Jackson returned home a day or two afterwards. On my arrival home, I found my professional business had so accumulated during my absence, and my time was so incessantly employed that I could find no opportunity to call upon or see Dr. Jackson.

Agreement for one tenth by the "sole and original discoverer!"

Here is Dr. J. by the side of his witness, Peabody, yet nothing is hinted as to the pretended prior discovery.

Remunera-
tion claim-
ed by Dr.
Jackson,
not "dis-
covery:" 10
per cent. on
patents a-
broad.

On Saturday afternoon, November 14, while sitting in my office and engaged in writing, Francis B. Hayes, Esq., called on me. He said at first that he came as a *friend* of Dr. C. T. Jackson, and requested permission of me to see the papers signed by Dr. Jackson, and relating to foreign patents. I at once exhibited them to him. After perusing them he stated to me that he thought Dr. Jackson should receive some remuneration for having signed the papers, and that he was *his attorney*, and had called at the instance of Dr. Jackson. I then expressed much surprise that, after I had exhibited such a willingness to arrange all matters between Dr. Jackson and myself in a manner right and satisfactory, he (Dr. Jackson) should, without having any conference with me, without calling on me or having any reason to think I would not do all that was right, and *speedily* do the same, send a lawyer to me. [The friendly feelings existing between us did not seem to me to warrant such. While I acknowledged his right to take such a course, it seemed to me too much like an attempt to entrap me in some way. I did not like the proceeding and the manner in which Mr. Hayes introduced himself, nor his subsequent conduct.]

(The part in brackets objected to as not testimony of any facts, but the thoughts, feelings and opinions of the witness. J. P. P.)

I stated to Mr. Hayes that I was not aware of any disposition on my part to be unjust towards Dr. Jackson; that I had always since my acquaintance with him, been governed by the most friendly feelings towards him, and then possessed no other. I asked Mr. Hayes what he thought ought to be satisfactory to Dr. Jackson. He replied that he thought that I ought to give him ten per cent. of the net profits abroad; that if I would do so, every body would say that I had acted fairly. He also said I ought to take into consideration Dr. Jackson's peculiar situation, the "female influences" to which he was subjected, and ought not to feel offended or wounded at any imprudent act of his.

I asked him if I gave Dr. Jackson any percentage of any profits, what guaranty I should have that he would not make further demands, or do or say something injurious to the interests of those concerned in the patents. He said, in reply, that Dr. Jackson would never dare do so after the papers were executed, which should be prepared by Mr. Charles G. Loring, who was also Dr. Jackson's attorney. I then replied to him that, if Dr. Jackson would fully agree to say or do nothing to the injury of those interested, or allow any thing of the kind to be done or said by

any one he could control, I would give him (in order to settle the matter and have no further disturbance from Dr. Jackson) ten per cent. of *my* portion of the net profits. In order that he might fully understand me, I stated to him that I could not say whether Dr. Morton would agree to do anything for Dr. Jackson or not; that must be a matter he must settle with him.

Just before Mr. Hayes left, he made a remark that *ten* per cent. on my part and ten per cent. on Dr. Morton's would be *twenty* per cent. Fearing that some misunderstanding had occurred, I took special care to illustrate what I meant by ten per cent. of my part of the net profits. I said simply, by the way of illustration, and not by any means under the supposition that any such profits would accrue, "If the net profits that may arise shall amount to \$100,000, one half of \$100,000 is \$50,000, which will be my share; ten per cent. of \$50,000 is \$5,000, or the sum to give Dr. Jackson on my part, provided the net profits are \$100,000." "Yes," said Mr. Hayes, "that is it." I was very particular that he should not misunderstand me, and my father, who was present, took up a newspaper, and in the margin of it and in pencil, illustrated the same to Mr. Hayes by *figures*. Whenever Mr. Hayes said anything to me in regard to Dr. Morton giving the same, I told him that I could not answer for what Dr. Morton would do, but he must make what arrangement he could with him. [Feeling very indignant that Dr. Jackson should have so unkindly treated me as not to have called on me, or made personal application to me, before sending to me a legal gentleman, I called at his house on my way home. He was absent, but soon returned.] I stated to him that I felt wounded in feelings by his conduct; that, from what I had learned he and his friends were saying and doing, I had reason to apprehend serious consequences would ensue. That if he thought Dr. Morton was in any manner attempting to deprive him of any credit or profit, I begged he would not jeopardize my interests and those of my friends abroad, to whom I had written respecting patents, and who would probably take measures to secure them. He said he certainly would do nothing to injure *me* or *my interests*; that he was satisfied, as he had seen Mr. Hayes, who had seen Dr. Morton, that all difficulties would be arranged. While in conversation the door bell was rung, and my father was announced as desirous of seeing me. He requested me to return home on business. I left with him and was informed that the *letters patent* had arrived from Washington in the mail of that evening.

(The part in brackets objected to, as not testimony of any facts.
J. P. P.)

First claim
of sole dis-
covery by
Dr. J.

The next day, (Sunday, Nov. 15th,) I again visited Dr. Jackson. The call was made directly or soon after dinner. I found him and his wife in their rear parlor. He was very much excited; said Dr. Morton was taking steps which would deprive him of credit in the discovery; and repeatedly said to me, much to my astonishment, for I had never heard him say anything of the kind before, "I claim the *whole* of it; it is mine—he did nothing but under my *prescription!*" I begged Dr. Jackson not to set up such a claim; as, in my opinion, I informed him he never could substantiate it, for he had but little or nothing to do with the matter; that, by so doing, he would only create an opposition to him and those interested in the patents, that must inevitably result to his and their injury. He then seemed determined to claim the whole merit of making the discovery. I remained during the afternoon and took tea with him and his family. In the evening I called at the Winthrop House to see Mr. Hayes. Not finding him at home, I proceeded to Dr. A. A. Gould's, in Tremont street. While there Dr. Morton came into Dr. Gould's study; said he had been down to my father's house to see me, and had waited some time. Shortly afterwards Dr. Henry J. Bigelow came and consulted Dr. Morton relative to an article which he (Dr. Bigelow) was preparing for publication in the *Boston Medical Journal* of Wednesday evening. While reading the article, a step was heard in the entry. Dr. Gould said it was Dr. Jackson's, and it proved to be so. Dr. Jackson entered; appeared somewhat surprised at seeing those present, and somewhat cold towards Dr. Morton.

Dr. Gould had previously remarked to me that he thought it very unfortunate that there should be such an apparent misunderstanding between Drs. Morton and Jackson; that each had been told by various persons that the other had said and done much against him, which probably were magnified representations of what had actually been said and done; that while two persons kept apart from one another so much, they never could have a good understanding between them; that they had better be brought together, and, by mutual explanations, he had no doubt they would find themselves mutually mistaken.

This is wholly inconsistent with Dr. J.'s present pretensions and perfectly consistent with Chandler's evidence.

The chance offering for a reconciliation, I stepped up to Dr. Jackson and whispered in his ear; I told him that then was his time to endeavor to come to some good understanding with Dr. Morton; that I did not believe he would find Dr. Morton at all disposed to take any advantage of him; and that they had better explain before those present what were the exact claims of each to the discovery. Dr. Jackson then stated that he had suggested to Dr. Morton to use ether on a refractory patient; admitted that he had never tried any experiment himself; had never performed any surgical operation by which he ever demonstrated the fact that the inhalation of sulphuric ether would alleviate pain during

a surgical operation; and, finally, after some mutual explanations on the part of him and Dr. Morton, Dr. Jackson expressed himself satisfied that he had been misinformed as to what he had been led by others to believe Dr. Morton had said and done; and was satisfied to rest his claims on the ground of being a joint discoverer with Dr. Morton.

I have a strong impression on my mind that Dr. Jackson affirmed that he had advised Dr. Morton to get permission to use ether at the Massachusetts General Hospital, and that Dr. Morton demurred to this, and said it was not so. "But I can prove it," said Dr. Jackson. "Well," said Dr. Morton, "if you can *prove it*, Doctor, I have nothing more to say." I distinctly remember the latter remark of Dr. Jackson, and the reply of Dr. Morton.

I have also a strong impression on my mind that Dr. Bigelow had the *proof sheets* of the article he was preparing, and that alterations were made therein, and particularly at the latter part of the article. I do not now remember the particular nature of the alterations made, [but I recollect that Dr. Jackson appeared to be perfectly satisfied with the article after Dr. Bigelow had made the changes.]

(The part in brackets objected to, as not testimony of any fact.
J. P. P.)

Dr. Jackson and myself went towards our respective homes in company. Just before we separated, some remark was made by Dr. Jackson in regard to the percentage. He spoke of receiving ten per cent. from me and ten per cent. from Dr. Morton, and that that would be *twenty* per cent. I at once remarked that such was not the case; that ten per cent. of my part of the profits in foreign patents, and ten per cent. of Dr. Morton's only made ten per cent. of the whole; and, in the way of illustration, said, if the profits were \$100,000, and my portion were \$50,000, ten per cent. of that would be \$5,000.

While walking through Howard street with Dr. Jackson, I told him that he ought to be particularly careful in regard to allowing his wife or family to speak or converse with others in relation to the matters between Dr. Morton and himself. That I was satisfied, and he himself must be, that much difficulty would probably arise were they to do so. He pledged himself to me that henceforth there should be nothing said; that I "*need not fear, he would take care of that.*"

The next day, (Monday, Nov. 16th,) the day on which the British mail steamer sailed for Liverpool, I received at my office an early call from both Mr. Hayes and Dr. Jackson; I think Mr. Hayes came first, and afterwards Dr. Jackson. They expressed

a determination to have all matters arranged before the steamer should sail, and threatened that, if both Dr. Morton and myself did not come to terms with Dr. Jackson, they would make such communication abroad as would ruin the interest of both of us. They stated that they had letters already prepared which they should forward to France if something was not *forthwith* done in the matter. I remonstrated against such proceedings as extortionate and unjust, as unwarranted from the friendly relations I had always manifested towards Dr. Jackson, and the exertions I had made in this matter in his behalf. Mr. Hayes said he had misunderstood the per centage I stated I was willing to allow Dr. Jackson; that he supposed it was ten per cent. of the whole net profits. I expressed great astonishment at this, after my *particular* endeavors to explain and illustrate my meaning. Finding that I would not suffer myself to be overreached, they stated that they would forward their communications to France. I then told them to "do it if they would, and take the consequences." If they were disposed, under all circumstances, to adopt such a proceeding, I could say no more. I stated I could see no reason why I should be driven in such a summary manner to conclude arrangements with Dr. Jackson.

[I had never manifested any disposition to do him injustice, but was ready and willing, so far as I was concerned, if he had any rights in the foreign patents, to accord to him, after a reasonable time and investigation into the matter, what might be satisfactory; but I did not like the summary attempt to extort from me, as well as from Dr. Morton, a large interest in the foreign negotiations.]

(The part in brackets objected to as thoughts and opinions of witness. J. P. P.)

Mr. Hayes informed me that, if I did not accede to Dr. Jackson's terms, my reputation would suffer, as it was in the power of Dr. Jackson and his friends and counsel to injure me. To this I replied, "I have no fear of that." My father, who was present, begged Dr. Jackson to desist from the course he was taking, and stated that he believed him under wrong influence and advice.

Dr. Jackson and his counsel still persisting in affirming that they would forward their communications to Europe, and having made what my father deemed an offensive remark, my father spoke up very quickly to me and said, "Let them send their communications to Europe, if they will do so, and are disposed to be so unreasonable, let them take the consequences," or words to that effect. Dr. Jackson, finding my father very angry at his proceedings, then said he would agree to the terms offered by me, (which were ten per cent. of my portion of the net profits,) and make what arrangement he could with Dr. Morton. I had pre-

viously stated that I could not answer for what Dr. Morton would do. I further stated that the condition on which I would agree to give the ten per cent. was, that Dr. Jackson should bind himself for the future to say or do nothing to the injury of those interested in the patents here and elsewhere. This was assented to by Dr. Jackson, he pledging himself that he would make no communications to Europe, and gave me to understand positively that none should go out in the steamer of that day. Mr. Hayes wished me to put on paper and sign what was the purport of our understanding. He drew up a sketch of it, and handed it to me to sign. On reading it, I found it entirely misrepresented the nature of the terms, as it expressed that I was to give Dr. Jackson ten per cent. of the profits of sales.

Finding that Mr. Hayes had presented me a paper to sign, so contrary to our understood agreements, I was so disgusted with the proceeding that I positively refused to sign any paper he might prepare.

On Wednesday, the 18th of November, I went to New York, at which place I remained until the Sunday following, leaving there on that day at about 2 o'clock p. m., in the late steamer Atlantic, and reached Boston on Monday morning, the 23d of November. In the afternoon, while returning from my office, I met Dr. Jackson in Court street and opposite the head of Hanover street. I stated to him that I had just returned from New York, was ready to settle our matters as soon as convenient to him. He said, in reply, that he could do nothing about it, but should leave all to his attorneys, Messrs. Loring and Hayes, whom I must see if I wished to do anything further. [His manner struck me as very peculiar, quite different from what I had before observed. He seemed reserved, or not inclined to converse on any subject.]

(The part in brackets objected to, as the opinion of the witness.
J. P. P.)

I afterwards called on Mr. Charles G. Loring, and had a conversation with him. He promised me that, in a few days, or as soon as he could get through with some insurance cases that he had in court, he would endeavor to arrange matters. I accordingly waited for him to notify me when he would be ready to meet me on the subject.

Not hearing from Mr. Loring for some considerable period of time, I again called on him, and found him engaged in a case in court. I spoke to him there, and he again gave me an assurance that, as soon as he could confer with me relative to the matter at issue between Dr. Jackson and myself, he would do so. On or about the 28th of January, 1847, I received a letter from Messrs. Loring and Hayes, in which after sundry statements, they informed

me that "under the present circumstances of the case, we think the least that, in justice to yourselves and Dr. Jackson, you can offer is 25 per cent. of the profits arising from the invention both at home and abroad, in settlement of his claim upon you." Also—"We hope you will see by our suggestions that we wish only to have a fair distribution of the profits of a discovery made among those who *cannot*, if they disagree effectually sustain the patent, and which, if sustained, promises to give all parties large sums of money for their united co-operation."

The difficulties which had arisen between Drs. Jackson and Morton, the conduct of the former, together with my not being able to agree with the latter in many of his views on matters pertaining to this subject, caused me to take measures to get rid of all interest in the patent; and, towards the latter part of December, 1846, about *six weeks after* the date of the American patent, and more than *five months* before June 18, 1847, the date of the affidavit made by me of the letter to the surgeons of the Massachusetts General Hospital—I transferred all my interest in the American patent to Dr. Morton. As soon afterwards, (viz. on May 31st, 1847,) as I possibly could effect arrangements, I abandoned to those who held and owned the foreign patent, all claims on them relating to it.

[On Saturday, March 13th, 1847, Dr. Morton called at my office. During the time he was there, he stated that he thought I could not know or be aware of the statements Dr. Jackson was circulating relative to me; that Mr. J. W. Barton, of the Albion Hotel, had informed him that he had understood Dr. Jackson had stated that I had obtained his signature to a legal document or paper under "*false pretences*,"—that I had made a statement to him of the contents, and that he signed such statement without a previous perusal of it; that afterwards, on examining, it he found it to be different from what I had represented to him. Dr. Morton referred me to Mr. Barton, who, he said, could give me more full information on the subject.

Accordingly, about 2 p. m., in company with my friend W. P. Gregg, Esq., I called on Mr. Barton, who corroborated the statements of Dr. Morton, and said he (Mr. Barton) received his information from a mutual friend, but he before could feel at liberty to furnish me with his name, he felt bound to consult him and ask his permission. In a subsequent interview with Mr. Barton, he stated to me that the mutual friend was John Henry Gray, Esq.

With this information, I called on Dr. Jackson and requested an explanation. Not receiving it, I addressed to him a letter substantially, as follows:

"BOSTON, *March 28, 1847.*

Dr. C. T. JACKSON:

SIR: My engagements for a week past have been so very pressing that I have not been able, until now, to find time to address you respecting the subject relative to which I called at your office on Sunday, the 21st inst. I would now state that I have understood there has been a report in circulation, to the effect that I had induced you, under misrepresentations, or false pretences, to sign a paper or papers, which, after examination, you found to be entirely different from what you had been informed by me.

I have now to request you to state to me (in writing) whether you or any member of your family, to your knowledge, have ever, in any conversation with any person or persons, given them to understand that you had been thus deceived by me, or whether in any conversation or written document, you ever intended to convey an idea of the kind. As such a statement, if ever made by any one, is entirely false, I shall expect you to do me the justice to give me such a contradiction of it as will be satisfactory to me or my friends.

Respectfully yours, &c.,

R. H. EDDY."

In reply to the above letter, I received one in the following terms, from Dr. Jackson:

"BOSTON, *March 30, 1847.*

ROBERT H. EDDY, Esq.:

DEAR SIR: A few minutes since, I received your note of the 28th March.

I wish to see you a few minutes with Mr. F. B. Hayes, and he informs me that he will be disengaged at any hour we can agree to meet him before 4½ o'clock at his office, and will see us in private.

Yours, respectfully,

C. T. JACKSON."

To the above note I returned to Dr. Jackson a reply, as follows:

"BOSTON, *March 30, 1847.*

Dr. C. T. JACKSON:

DEAR SIR: Your note of this morning, acknowledging the receipt of my communication of *yesterday*, (erroneously stated March 28th) is before me. In reply, I have to state that circumstances will prevent me from complying with your request therein contained.

In haste. Yours respectfully,

R. H. EDDY."

I waited until the 10th of April, hoping that Dr. Jackson would render me that justice which I sought, but, as it came not, I then wrote to him again, as follows :

" BOSTON, *April 10, 1847.*

" DEAR SIR: *Twelve* days have elapsed since my note to you of the 29th March (dated 28th) was placed in your hands. I have patiently waited from you the statement therein asked—one which courtesy and justice would require you to have given without a moment's delay. I shall be loth to consider your silence as an admission on your part that you have made assertions and spread reports devoid of truth, and injurious to my character; or that, when such are in circulation, come from whom they may, by not contradicting them, or affording me proper means of doing so, you will suffer them to be believed. I should be sorry to be obliged to view you as guilty of having falsified my doings, for the sake of establishing any claim you have—an act which no well-bred gentleman would commit.

" A further continuance of silence on your part will, I think, fully warrant me in conclusions which may lead to consequences that may be far from agreeable to you.

" Yours, respectfully,

" R. H. EDDY."

" Dr. CHARLES T. JACKSON."

I subsequently received a letter in the following terms :

" 1 DEVONSHIRE, CORNER OF STATE STREET,

" *Boston, April 14, 1847.*

" DEAR SIR: Dr. Charles T. Jackson received your note of Saturday last, just as he was leaving for Washington, and requested me to inform you of his absence; but, by reason of pressing engagements, I have not found time to call upon you and let you know that, in the hurry of Dr. Jackson's departure, he had not time to answer your letter.

" Will you please receive from me this excuse for my tardy compliance with Dr. Jackson's wishes.

" Dr. Jackson requested me to ask you for a copy of the petition or solicit for the patent for the "new application of sulphuric ether for relief of pain attending surgical operations," as it was drafted when signed by him; as well as copies of any papers which he requested should accompany the petition or solicit.

" If you will please have copies of these papers prepared and send the same to me, I will pay for them as soon as received.

" Yours respectfully,

" FRANCIS B. HAYES."

" R. H. EDDY, Esq."

To Mr. Hayes's letter I replied as follows :

" BOSTON, *April 16, 1847.*

" SIR : In reply to your note of the 14th instant, I have to inform you that it would afford me pleasure to comply with your request for a copy of the petition which Drs. Morton and Jackson signed, could I furnish it. It was, so far as my recollection serves me, in the ordinary form, such as persons generally sign, on making application for a patent, and was by me considered a paper of so little importance that I did not deem it necessary to procure a copy of it.

" Yours respectfully,

" R. H. EDDY."

" FRANCIS B. HAYES,

" 1 *Devonshire street, Boston.*"

I received nothing further from either Dr. Jackson or his attorney, in relation to this matter; and, as I shortly afterwards ceased to feel any particular interest in the ether discovery, I never troubled myself to obtain from Dr. Jackson a refutation of the charges to which I have alluded. The next time my attention was directed to it was when I read the letter of Dr. Jackson to the Hon. W. H. Bissell, dated Dec. 18th, 1851.]

(The part in brackets objected to as immaterial, irrelevant to any material question connected with etherization. J. P. P.)

In my letter to the surgeons of the Massachusetts General Hospital, and which was sworn to by me on the 18th of June, 1847, I stated that "I had found Dr. Jackson tinctured with old and exploded prejudices against patents, and I labored to remove them."

By such prejudices I meant such as have been common to many other persons, viz: that there was an odor of quackery about patents. Dr. Jackson expressed to me no objections to a patent being taken out; on the contrary, he was willing it should be, provided it could be done without his name appearing in it, or being connected with that of Dr. Morton. I never advised Dr. Morton that *he* could take out a patent in his *own name*, but I informed him, on the 21st of October, that, from what I had learned, I was of the opinion that the discovery was made conjointly by him and Dr. Jackson, and that the patent, if applied for, must be by them *conjointly*.

As I never informed Dr. Morton that, as he had made the first application of the discovery, *he* could take out a patent in *his own name*. I have to remark that Dr. Jackson never called on me and asked me why I had so advised Dr. Morton, nor did I

ever attempt to explain to Dr. Jackson that in consequence of such application, Dr. Morton was entitled to take out a patent in his own name. I never recognized Dr. Jackson as other than a joint discoverer, and whenever I spoke to him of losing credit for the discovery, I meant as a joint discoverer. I did remark to him that I believed Dr. Morton would *make application* for a patent whether legally authorized to do so or not, and that, should he succeed in obtaining one without Dr. Jackson's name being mentioned in it, he (Dr. Jackson) might lose what credit he might be entitled to in the matter. My reasons for believing that Dr. Morton would apply in his own name alone were, that I supposed he entertained doubts as to Dr. Jackson being in any respect a joint inventor or discoverer, and that he believed that he (Dr. Morton) was the *sole discoverer*. Under such a belief, I supposed he would certainly make an application in his own name.

I find stated in the pamphlet published by the Messrs. Lord, the attorneys of Dr. Jackson, the following words :

“ It is proper in this connection to state that Dr. Jackson was, in the month of November, 1846, notified by Mr. Eddy, that he had in his possession for him (Dr. Jackson) a considerable sum of money which had been realized from the sale of patent rights, and that Dr. Jackson indignantly refused to accept it.”

The fact is, I never had, at any one time, in my possession, and for Dr. Jackson, any such sum of money ; neither did I ever give him any notice that I had any.

I believe once, when Dr. Jackson expressed to me his fears that Dr. Morton would not faithfully comply with his agreement to pay him the ten per cent. on licenses, and mentioned in the bond of Morton to him, I somewhat jocosely remarked to him that I did not think he had much reason to apprehend any difficulty on that point, as, from what I had been informed, I was led to suppose that Dr. Morton's negotiations, then completed, would produce a sum the percentage on which would in all probability nearly amount to that for which Dr. Jackson originally stipulated to dispose of his whole interest in the matter ; that the funds would be likely to pass through my hands, in which case I, as the friend of Dr. Jackson, should be pretty sure to watch over his interests, and see that he was not deprived of that to which he was entitled. An indignant refusal to receive such money was never, to my recollection, made by Dr. Jackson, as I never notified him that I had any such for him.

As to
Wells's
claim--in-
terview be-
tween Mor-
ton and
Wells.

About the time I was preparing the papers for the procural of the patent in this country, I was requested by Dr. Morton to call at his office and see Dr. Horace Wells, whom he invited me to converse with on the subject. Accordingly, I did call and see

him there. At this interview, Dr. Wells doubted whether Dr. Morton could get a patent, as he did not, as he expressed himself, believe the subject was a patentable matter. He advised Dr. Morton, however, to apply for a patent on the application of ether to relieve pain in surgical operations, and, under such application, sell as many licenses as he could, and obtain as much money for it as possible. I believe he said that he had, within a short time, been engaged in some shower bath invention which he had made, and which had been very profitable to him, by reason of sales effected under similar circumstances. From the manner and conversation of Dr. Wells at this time, I discovered nothing to lead me to suppose that he was under the belief that such an application of ether had ever been conceived by him.

Wells, so far from setting up any claim, advises Morton to take a patent.

In respect to Dr. Jackson's early prejudices against patents, I endeavored to overcome them by expressing to him what seemed to me correct and well established views in regard to the propriety of every inventor protecting himself in accordance with the laws of his country. Dr. Jackson seemed convinced of the correctness of my views, for he subsequently informed me that, after consultation with a chemist of great reputation, (Dr. Hase, I think he said, was the person,) he had resolved to secure by patent such inventions as he might thereafter make, and, in accordance with such conclusions, he sent me the specification of an alleged improvement on the preparation of gold for filling teeth, and expressed to me a desire to have a *caveat* filed in it, preparatory to making application for a patent. I subsequently received from him a letter as follows:

“BOSTON, March 26, 1847.

“Will Mr. R. H. Eddy please send to me, by the bearer, my letter describing my method of preparing gold for plugging teeth, &c.

“I mentioned to you last Sunday that I did not wish to take out any patent for it, and such are my views at this time.

“Your obedient servant,

“CHARLES T. JACKSON.”

In accordance with the request of Dr. Jackson, I returned to him the letter alluded to by him in his note.

5th. You have described a protest which Dr. Jackson says he dictated and you wrote. Did he dictate to you any such protest, or any substantially like it, and if so, what?

Ans. I have not the most distant recollection of any such protest, and I fully and entirely believe none such ever had existence. Note this.

6th. Did you make any change in the paper which Dr. Jackson signed, after you had read it to him? Or did you change

any paper which he signed, from the form he dictated to you?
Did you write any paper under power of attorney?

Compare this with Jackson's statement. Ans. I have no recollection of making any change whatever in any papers Dr. Jackson signed, after he signed them, and I am positive that I never made any such change as mentioned by him; I did not write any papers under power of attorney.

7th. Did Dr. Jackson read the papers before signing them?

Ans. Dr. Jackson either read the papers before signing them, or I fully read them to him. I am inclined to think, however, that I read them to him, and afterwards placed them in his hands, or before him, while at my desk. It is a custom with me either to read papers to my clients, or cause them to read them before they execute them—I am very particular in this respect. I have not the least doubt in the world, that Dr. Jackson had a good opportunity to understand the papers before he signed them, for I had not the slightest reason or desire to have him sign them without at first fully comprehending them in every particular.

8th. Did you make any change in them after he read them?

Ans. I am not aware of having made any change in the wording of a single paper after it was signed by Dr. Jackson.

9th. What was the extent of Dr. Jackson's claims at the time he signed the papers for the American patent?

Ans. I am not aware that he claimed more than the suggesting to Dr. Morton the use of ether on a refractory patient?

10th. You have said that Dr. Jackson had told you that he suggested the Magnetic Telegraph to Professor Morse. Did you or not, at the time you made the arrangement between Drs. Jackson and Morton as to the American patent, suppose Dr. Jackson to have been the true discoverer of what Professor Morse claimed? Why?

(This question objected to as immaterial and irrelevant.

J. P. P.)

Dr. Jackson's claim to Morse's Telegraph. Ans. I did suppose Dr. Jackson, at such time, to have been the true inventor or discoverer of the Magnetic Telegraph of Professor Morse. All my information on this subject, however, was derived principally from the assertions of Dr. Jackson that such was the fact. I had never, to my present recollection, read any statement to the contrary. I had understood there had been a correspondence between Dr. Jackson and Professor Morse, while I was in Europe in the winter of 1838-9, and I believe Dr. Jackson sent me, while I was in Paris, a communication on the subject for the French Institute, which I think I delivered or sent to Mr. Elie de Beaumont, then a distinguished professor in the Ecole des Mines. I believe I placed it in the hands of Mr. Elie de Beaumont during one of my visits to him, but it is possible that I might have sent it to him by post.

11th. When you advised Dr. Morton to associate Dr. Jackson with him in the patent, did you advise him that Dr. Jackson was a joint discoverer, or that he might be, or how otherwise, and on what evidence did you found this advice?

Ans. I advised Dr. Morton that, from what I had understood from Dr. Jackson, I was led to the belief that the matter was or might be considered a joint discovery between them. I had formed my opinion principally from the statements and admissions of Dr. Jackson, he having informed me that he suggested to Dr. Morton to use ether, in order to control a patient who was desirous of having some dental operation performed. I also understood that he had made no experiments to ascertain the fact afterwards discovered by Dr. Morton. I supposed that had not Dr. Jackson suggested the use of ether to Dr. Morton, the latter would never have made the discovery. Also, that, had Dr. Morton kept the matter a secret, Dr. Jackson would never have known of the effect discovered. [Thinking the matter one in which both had been engaged, and believing it would be for the interest of Dr. Morton to have Dr. Jackson associated with him in the discovery and patent, and feeling inclined to obtain as much credit for Dr. Jackson as I could with propriety,] I recommended to Dr. Morton that the patent be taken out on a joint invention.

(The part in brackets objected to, as feelings and thoughts of the witness. J. P. P.)

12th. How far was this advice a deliberate opinion, and how far a matter of caution and policy for Dr. Morton, or how otherwise?

Ans. I do not think the opinion was a deliberative one. I have no doubt that I supposed it was for Dr. Morton's interest to have Dr. Jackson situated as a co-discoverer; and it was more what I supposed was a matter of policy with him, together with what I imagined to be true, and what I believed to be for the benefit of Dr. Jackson, that induced me to advise Dr. Morton to apply for the patents, as he did, viz: as the joint invention of himself and Dr. Jackson.

13th. Did Dr. Morton, or not, ever admit that, in his own opinion, Dr. Jackson was a joint discoverer?

Ans. Dr. Morton never admitted to me that Dr. Jackson was a joint discoverer with him, or was, in fact, a discoverer in any sense. [I recollect Dr. Morton's appearance, when I advised him that I thought it was a joint discovery, struck me as strange. He demurred to it, and said, he did not see why Dr. Jackson should have anything to do with it, as he had made arrangements with him to satisfy him for the advice or assistance he had rendered him. I am inclined to think that, at the time, I did not fully

comprehend the objections of Dr. Morton to being connected with Dr. Jackson.] He, however, afterwards acquiesced in my advice.

(The part in brackets objected to, as opinion of witness. J. P. P.)

14th. When Dr. Jackson said, "but I can prove it," and Dr. Morton replied, "if you can prove it I have nothing to say," please describe the manner of Dr. Morton.

(This question and answer objected to as matter of supposition and opinion.)

Ans. The manner of Dr. Morton was such as by no means indicated any admission on his part that Dr. Jackson could prove what he stated. I should rather say it was such a manner as a person would naturally assume with a reply to a question or statement such as neither admitted nor denied the truth of such statement.

Cross-interrogatories by A. Jackson, jr., esq., counsel for Dr. Charles T. Jackson.

1st. Will you be kind enough to state how the answers to the previous questions have been prepared—whether with deliberation, with ample time to consider the matters in the questions proposed—whether by reference to any publications, books or memoranda—if any, what—whether with consultations with any persons—if any, who?

Ans. I prepared them with some considerable deliberation, and so far as I now know, I had ample time to consider the matter proposed; my references were to memoranda which I have spoke of in the answers; and I also had, during the time, a printed copy of my letter to the surgeons of the hospital, which I read over. I had before me some other publications, but was not aware that I paid much attention to them; I have had no consultation with any one, except that Mr. Dana handed me his questions, and I might have asked him what he meant by particular parts of his questions, but it was nothing of any importance that I am aware of.

2d. Will you be kind enough to state in respect to the memoranda referred to, what these memoranda were, and any matters connected with the making of these memoranda.

Ans. Within a few months after the discovery was made, I supposed that the time might come when I might find it necessary to freshen my memory in regard to matters connected with the ether discovery, and I therefore wrote out what I recollected of it up to the time of my conferences with Mr. Charles G. Loring. These minutes I have had in my possession ever since. I intended to have continued them at the time, but I have been prevented by occupation or the want of favorable opportunities.

3d. Is this written statement one continuous narration, or on loose sheets or bits of paper?

Ans. It is one continuous narration on sheets of paper not stitched together. I would not pretend to say that it is one continued narration in the order in which everything occurred, although it may have been so.

4th. At what date, as near as you can ascertain, were your first memoranda made?

Ans. I don't remember precisely, but in all probability within the first four or six months after the ether discovery came out, as near as I can recollect.

5th. Have you any objection to permitting me to examine this statement, or narration?

Ans. Not the slightest.

6th. Will you state your position with regard to etherization, and its announcement in the fall of 1846, and its history in the winter following? Whether you wrote, or prepared any pamphlets, or letters, or communications? If any, what?

Ans. The only letter which I now recollect of preparing, I think, was the letter to the surgeons of the hospital. I think there was one short letter after that, but I won't be certain. The only position which I had with regard to it, is what I have stated in my answers.

8th. Will you please state your pecuniary position with regard to etherization, what sums you have paid out, if any, on account of this matter, what sums received by reason of any connection with it?

Ans. I think I paid out some treasury fee for the patent, and some small amount towards the patent in England. I don't recollect what these amounts were, nor do I remember that I received anything, except that I received from Dr. Morton some two or three hundred dollars, when I settled with Dr. Morton, and assigned over the papers to him.

9th. Will you please state *about* what was the amount paid out by you on account of patents, or of matters therewith connected?

Ans. That would be impossible for me to state at this distance of time, without examination of my papers. It was not much of a sum.

10th. Can you state how on a settlement of what, the amount paid to you by Dr. Morton was made up?

Ans. I was very desirous at the time of getting rid of the whole affair. I became somewhat disgusted with it. I recollect that he made me the proposition to pay me some small sum to transfer to him everything connected with the patent, which I did; that is, in America. The particulars, I think, will be found in the assignment, which is on record, I believe.

11th. When was this, the date of this settlement and payment by Dr. Morton?

Ans. I think it was sometime in the latter part of the year 1846, or about the 1st of January, according to the best of my present recollection.

12th. Did Dr. Morton pay you the amount referred to in your answer to 10th interrogatory, in the last of 1846, or about January 1st?

Ans. My impression is that he did.

13th. After that, did Dr. Morton pay any sum or sums of money to you?

Ans. I think Dr. Morton gave me something like forty pounds sterling to be remitted to England, as a donation on his part to those who had taken out the patent there. That is all I recollect of receiving of him.

14th. When was this done? What led Dr. Morton to do this?

Ans. I don't remember the precise date. It was sometime in the spring of '47, about May 31st, according to the best of my recollection. It was a donation made by him to those in England who had taken out the patent there, to remunerate them in part for their losses, consequent upon the discussion here in relation to the discovery and the course things had taken.

15th. What led Dr. Morton to do this? Was this done promptly by him, or after communications to him from you, or did those persons write to Dr. Morton?

Ans. I can't state positively, now, all that led Dr. Morton to do this, but I told him that by reason of the course which things took here, I had reason to suppose that they would find themselves very much embarrassed in their operations relative to the patent. He directed me to discharge all his interest in it. I think he wrote me a note, stating that I might abandon all his interest in it if I thought proper, which I did. He remitted this sum as being about one-third of the expenses which they had been put to in relation to the matter. It was entirely unsolicited on their part, according to the best of my recollection now. I might have received some letter from them.

16th. Can you state to whom you remitted this, and the date of remitting it?

Ans. I can give that information by examining my letter-book. My impression is that I remitted it to E. J. Coates, esq., of London.

17th. Had you remitted or sent this money to the person or persons above referred to, before communicating to Dr. Morton about this matter?

Ans. I had not.

18th. Did not the sums, or any of them, paid by purchasers of

licenses to use ether, come into your hands or possession, or under your control?

Ans. It is possible that some persons might have paid me moneys for Dr. Morton, which I paid over to him afterwards. I have the impression that some did, or that one did at least.

19th. If there were any such payments to you, did you not retain the proportion due, belonging and coming to you for your interest in the American patent?

Ans. That I cannot say now, it is so long ago.

20th. Can you state what, or about what, amounts Dr. Morton received from October, 1846, to January, 1847, for sales of patent licenses to use ether?

Ans. I cannot.

21st. Will you please state what Dr. Morton said to you when he called at your office on October 1, 1846? Can you recall his phraseology?

Ans. No more than what I have stated in my answer; that is, I cannot state more than I have, generally, there.

22d. Whether or not, Dr. Jackson called at your office in October, 1846? If aye, when, and for what purpose?

Ans. All that I remember of Dr. Jackson's calling at my office, is what I have stated in my answer. I have no recollection of his calling at any other time.

23d. Can you state when in October Dr. Jackson called at your office?

Ans. I think it was the time he signed the papers for the American patent. It was the latter part of October.

24th. Had not Dr. Jackson called at your office before the 28th of October, 1846?

Ans. Not to my present recollection.

25th. Recurring to an evening when you came from the theatre, in October, 1846, and saw Dr. Jackson at your father's residence, whether his wife, and wife's mother, were with him or not?

Ans. I remember his wife being with him, but I have no recollection of his wife's mother being there.

26th. Can you state what was said by Dr. Jackson about the patent matter on this evening? Where was the conversation had? In what room? Whether the persons present joined in the conversation?

Ans. The conversation with Dr. Jackson, I have stated generally in my direct answers. It took place in the front room. How far all the persons present joined in the conversation, I cannot state; but I remember Mrs. Jackson's joining in it.

27th. Whether Dr. Jackson stated it was contrary to the principles of liberal science, for a scientific man to take out a patent?

Ans. I could not state at this time.

28th. On this evening above referred to, at about what time did you get home from the theatre? How long an interview did

you have with Dr. Jackson? Were you alone with him, in a different room from where you found him and your father when you came in?

Ans. I returned from the theatre directly after the first play was over, between nine and ten o'clock. My impression is that it was nearer ten than nine. My impression is that Dr. Jackson remained there about an hour. I have no recollection of being alone with him in any room.

29th. Whether what conversation you had, on the evening referred to, was had so that those present in the room heard your conversation?

Ans. That I can't remember now. I dare say much of it was heard. I have no recollection that anything was attempted to be concealed in any way.

30th. Whether you remember that Dr. Jackson spoke, then, of his objections to patents? If aye, can you state what he then said?

Ans. I recollect that he objected to be associated with Dr. Morton in the patent, on the ground, as I understood it, that there was an odor of quackery about patents, and he had a further objection on the ground of what he supposed to be the action of the Massachusetts Medical Society. He said if Morton was willing to give him five hundred dollars, he might take it and do what he pleased with it.

31st. What was the result of your conference this evening with Dr. Jackson, as to what should be done about the matter of patent?

Ans. No particular result that I recollect. He came to see me, I did not go to see him.


32d. Do you remember that you had, on this evening, any conversation with Dr. Jackson as to any difference between the scientific and patent law view of discoveries; if aye, what was this?

Ans. I don't remember of having any.

33d. Do you recollect that Dr. Jackson said that Morton in using ether in extracting the tooth of Frost, acted under his direction, and that you said that, in a technical sense, Morton made the application?

Ans. No, sir, I have not the slightest recollection of anything of the kind; the fact is, I did not know the man's name. There was no cause for any such conversation that I now recollect of.

34th. Do you remember that Dr. Jackson on this evening, said anything about inhaling ether to prevent the pain in the throat arising from breathing chlorine gas?

 Ans. No. Dr. Jackson never said anything of that kind to me.

35th. On this evening referred to, what was the chief subject of your conversation with Dr. Jackson?

Ans. It was in regard to taking out the patent with Dr. Morton.

36th. Whether you witnessed any, and if any, how many opera-

tions in the office of Dr. Morton, in October, 1846, and November of that year?

Ans. I don't recollect now any operation that I witnessed there. It is possible I might have, but I can't say.

37th. How many times, so far as you can state it, were you in Dr. Morton's office during the month of October, 1846?

Ans. I can't state.

38th. Can you state about how many times,—whether several or a few times, or how otherwise?

Ans. I think now it must have been a few times, not many times.

39th. On the evening at your house above referred to, was anything said about the trials of ether at the Massachusetts General Hospital?

Ans. It is possible there might have been something said. I have a vague impression that there was; I can't recollect the particulars now, if any.

40th. In this evening, did Dr. Jackson speak of transferring the use of it to Dr. Morton in his practice, or of a quit claim to him of this use for five hundred dollars?

Ans. No, sir, not to my remembrance; I understood him to say that he might take the whole matter and do what he pleased with it, upon giving him five hundred dollars.

41st. In preparing the specification for the patent, did you confer with Dr. Jackson, or call on him about the different kinds of ether?

Ans. I did not.

42d. Do you not remember that Dr. Jackson spoke with you of one of the kinds of ether, the nitric, mentioned in the patent, that it was dangerous and would produce death?

Ans. No, I have no recollection of anything of the kind.

43d. Will you state the amount, the proportion to the whole, of your interest in the American patent?

Ans. I think it was one quarter.

44th. Can you state when the arrangement for this one quarter was concluded, and when the discussion of this, of how much it would be, was begun with Dr. Morton? In what part of October?

Ans. I believe I have stated that in my direct answers.

45th. Will you please state it in this connection?

Ans. I think it was about the twenty-first of October.

46th. Was there any discussion with Dr. Morton as to how much your interest should be; how large or small a proportion of the whole?

Ans. I remember when it was proposed that I should be interested, I suggested that Dr. Jackson should have one-third, Dr. Morton another third, and I another. Dr. Morton demurred to that and stated to me that if I would aid him in the preparation of the papers and getting of the patent, that he would give me one quarter.

47th. Do you remember that you stated that you found the Doctor so objecting to patents that you felt afraid he would back out from signing the papers, before you could draw them?

Ans. No, I do not.

48th. Do you remember, in urging Dr. Jackson about the patent, you stated that there being no Academy of Sciences here, the Patent Office was the only place where he could file any papers which would record the discovery in this country?

Ans. I have no recollection whatever of speaking of any Academy of Sciences in any way. I might have given him to understand that it would be advisable to join with Dr. Morton in the patent, as the record in the Patent Office would be of service to Dr. Jackson in the way of proving that there was credit due him in the matter.

49th. What, if anything, do you recall to mind of saying to Dr. Jackson about the secret archives of the Patent Office?

Ans. I don't remember anything. I don't remember why I should say anything to him about the secret archives. I might have said something to him about it in connection with his filing a caveat for an alleged discovery of his in reference to a preparation of gold, such as I have already mentioned.

50th. What, in connection with the ether patent, was said about the secret archives? Is there any such department, or place, in the Patent Office? If aye, for what purpose, and how long has it been so in the Patent Office?

Ans. Nothing was said about it to my recollection. There is such a department in the Patent Office, which has been established since 1836. It is a part of the Patent Office where caveats and certain other papers are filed in secrecy, in accordance with the law.

51st. In this conversation with you at your house, did Dr. Jackson say that Morton could not take out a patent, and did you state that he would, for making *an application of the use* of ether, which, in the eye or sense of the patent law, he had done?

Ans. As I have stated before, I have no recollection of having filed any caveat in the matter, though it is possible that I did. I don't think there was one. I have no recollection that Dr. Jackson said that Morton could not take out a patent. I was under the belief that Dr. Morton would apply for one, because I had reason to suppose that he thought he could do so, and I urged Dr. Jackson to associate with him, in order that he, Dr. Jackson, might gain both profit and credit.

52d. What, if anything, do you recollect of saying to the effect that Morton would endeavor for the *application for the use of ether*, to get a patent?

Ans. I don't recollect of saying anything more than what I have stated generally. I don't pretend to give the exact words.

53d. Do you recollect that you sent word to Dr. Jackson's house that he must come and sign the ether patent papers, before he left for the south, on the day the papers were signed by him in your office? what was the date of signing the papers?

Ans. I did not know that he was going to the south, and have no recollection of saying it. I recollect of going up to his place, and walked down with him. He did not tell me he was going away. The papers were signed on the 27th of October.

54th. How many times was Dr. Jackson in your office, to sign any papers in reference to the patent?

Ans. Twice.

55th. How long were you engaged in drawing up the papers for the application for the ether patent for this country?

Ans. I might have been, perhaps, a couple of days—two or three days. I don't remember the exact time.

56th. Can you state how long the papers for the American patent were drawn before October 27, 1846?

Ans. I cannot, now, probably not more than a day.

57th. Had they not been partially drawn, or sketched, and lying aside for some little time, as a week, or ten days?

Ans. No, sir.

58th. How many times before this 27th October, had you had interviews with Dr. Jackson in the month of October?

Ans. I can't state beyond what I have stated in the answer to the direct interrogatories. I have no recollection of any other interviews than what I have stated there.

59th. In your interviews with Dr. Jackson before the patent papers were signed, had you spoken to him of the course taken by merchants, who had no personal use of a discovery made by them—to take out a patent and transfer to others? If aye, what was this, as stated by you?

Ans. I don't remember anything of the kind.

60th. When Dr. Jackson signed papers on 27th October, 1846, who was present? Why did you go for him? Was Dr. Morton present?

Ans. I don't remember of any one being present. It is possible there might have been. I recollect, there was a young man in my office by the name of Leighton, whose name appears as a witness. I probably called him in to witness the signing. I can't say whether Dr. Morton was present. He might have been in before, or after, to sign on his part, or he might have been present and signed at the time. I went for Dr. Jackson to come down and sign the papers, because they were ready for his signature.

61st. Do you not remember that Dr. Morton was not present when Dr. Jackson signed the paper—that Dr. Jackson then, in signing, said, that Dr. Morton could not sign that, for he had not

invented or discovered anything, as stated there in that specification?

Ans. I am positive that he never said anything of that kind. I am rather inclined to the opinion that Morton was not present, though I could not say for a certainty.

62d. Do you remember that, on this same 27th October, or on the next day, you either sent or went for Dr. Morton?

Ans. I don't remember now about that. I might possibly have sent to him.

63d. Do you remember, that on the 27th or 28th of October, you received a transfer or assignment from Dr. Morton of your interest in the ether patent?

Ans. I think the assignment bears even date with the signing of the papers. The date, however, will be found by examining the document.

64th. Was Dr. Jackson present when that assignment was made by Dr. Morton?

Ans. I don't think he was.

65th. When did Dr. Jackson first learn from you of your interest in the patent?

Ans. I can't recollect that.

66th. Did Dr. Jackson hear of this before November or December following?

Ans. I don't know when Dr. Jackson heard of that. If I did not mention it to Dr. Jackson, it was from no desire to conceal it from him, and only perhaps from a desire common to every one, to keep his own business to himself.

67th. Do you remember to have had with you, on November 15th, the proofs of an article published by Dr. Henry J. Bigelow in the Boston Medical and Surgical Journal of November 18th, 1846?

Ans. I recollect that Dr. Bigelow brought in the article, but whether in manuscript or in the proof-sheets I am not certain. I feel pretty certain that it was the proof-sheets. The only time I ever saw the article was on that evening, at Dr. Gould's.

68th. Do you not remember that, on the 15th November, the Sunday at Dr. Jackson's house, you gave Dr. Jackson a copy of the proof-sheets?

Ans. No, certainly. I never had them. I never saw them till Dr. Bigelow brought them out on that evening, or knew anything about them, to my present recollection.

69th. Do you remember that Dr. Jackson came in at Dr. Gould's while you were there on November 15th?

Ans. Yes, I do. I recollect perfectly well what was said at the time of his coming.

70th. Can you state what he first said, and what those present were doing at the table at the time?

Ans. I cannot state what he first said, nor can I remember what those at the table were doing at the time.

71st. Whether you remember that Dr. Gould said, "I am glad to see you and Dr. Morton face to face, and I've no doubt but that, if you state your claims, Morton will fully admit what you state;" and that Dr. Jackson stated, 1st, that he first discovered that the inhalation of ether vapor would produce insensibility to pain; 2d, that he committed this discovery to Morton, and requested him to employ it in the extraction of teeth?

Ans. I recollect to this effect: that Dr. Gould and I had some conversation in regard to matters between Drs. Morton and Jackson, and Dr. Gould remarked as I have stated in my direct answers. I do not remember that Dr. Jackson stated that he first discovered that the inhalation of ether vapor would produce insensibility. I remember his stating that he suggested to Dr. Morton to try it upon a refractory patient.

72d. Whether you remember that Dr. Bigelow said to Dr. Jackson, "Then you claim that Morton was nothing but your tool?" and that Dr. Jackson replied, "An intelligent instrument?"

Ans. I do not.

73d. Whether you remember that Dr. Gould said anything about its being *providential* that they who were present had met together that evening?

Ans. I have no distinct recollection of anything of that kind, though I have a faint impression that he might have said something of the kind.

74th. Whether you remember that Dr. Bigelow was urgent about the publication of this article?

Ans. I do. He was urgent about having it made satisfactory. It was to go to press the next morning, I believe.

75th. Whether you remember that Dr. Jackson, objecting to his publication, said, that if he did, he should reply to his article?

Ans. I do not.

76th. Has not Dr. Jackson, for many years, been retired from all surgical practice? If aye, how many?

Ans. I can't say. I have so understood it.

77th. For several years, was not Dr. Jackson absent from Boston, much of the time, on surveys? Can you state on what years he was away at Lake Superior, in the employ of the U. S. government?

Ans. I know that he was absent much of his time on his geological surveys of Maine, New Hampshire and Rhode Island. I don't know when he was away at Lake Superior.

78th. Will you please look at this paper, and state whether, on the Sunday afternoon of November 15th, you read it over with

Dr. Jackson, or whether you handed it to Dr. Bigelow, or had any discussion about it with Dr. Bigelow?

Ans. I never saw the paper before to my knowledge. I have no recollection of such a paper. (This paper is annexed, marked A.) J. P. P.

79th. Referring now to the interview with Mr. Hayes of Nov. 16th, and the previous interviews you had with Mr. Hayes, whether, or not, in these, and in the first you had with him concerning the matter of the percentage, he stated that he was acting under the advice of Charles G. Loring, Esq.?

Ans. All I can recollect is that Mr. Hayes informed me that Mr. Loring was counsel with him. I have stated in my direct answers when he first told me this.

80th. Whether or not, on Nov. 16th, you gave Mr. Hayes assurances that you would do all in your power to induce Morton to pay ten per cent., and that you had no doubt he would do this?

Ans. I have no recollection of telling him all that. I might have stated to him that I would do all in my power to make Dr. Morton do what was fair, but I distinctly told him, or gave him to understand, that he must make his own terms with Dr. Morton.

81st. Whether or not you stated to Mr. Hayes, after first discussing this proposition with him, of inducing Dr. Morton to pay ten per cent., that you had seen Dr. Morton, and that he had agreed to do this?

Ans. No, sir. I have no recollection of anything of the kind. On the contrary, I have no reason to believe that I made any remark of the kind.


82d. Whether or not you knew that the letters referred to in your statement about the 16th of November, were, in consequence of the interview of Mr. Hayes and of Dr. Jackson with you, kept back and not sent to Europe till the next steamer was to sail?

Ans. I can't say. I do not know. I have an indistinct impression of having heard something of the kind.

83d. Whether you remember, during the early months after October, 1846, in speaking of the *expected profits* to arise from the sale of "licenses" to use ether, of saying something, if aye, what, of driving in your carriage from the proceeds of your share in this?

Ans. No, I do not. I don't think I ever made any remark of that kind.

84th. What do you remember to have said, if anything, just after the patent was signed by Dr. Jackson, that you had to deceive the Doctor a little, before he would sign the papers?

 Ans. Nothing. I have not the slightest idea in the world that I ever made any remark of the kind, for I recollect no cause for such, nor do I believe there ever was such.

85th. What do you remember to have said to Dr. Jackson

about his entering into obligations not to reclaim the patent for a number of years? What was this?

Ans. Nothing.

86th. What, if anything, about Morton's putting his property out of his hands, so that Dr. Jackson could not get anything from the hand of Dr. Morton.

Ans. I don't remember anything.

87th. Do you remember to have said to Dr. Morton that, since Dr. C. T. Jackson had suggested the use of the ether, that his name must be in the patent, or it would be in danger of being invalidated by Dr. Jackson's testimony, or words to the same effect?

Ans. I probably informed Dr. Morton that under the impression which I then had, that this was a joint discovery, Dr. Jackson's name should be in it, to conform to law. I remember no other statement made to him upon this point.

88th. Did you or not say that it must be patented as a joint discovery, or invention, regarding Dr. Jackson as the discoverer, and Dr. Morton as making the practical application of it, or words to the same effect?

Ans. I never regarded Dr. Jackson as the discoverer, and therefore could not have said that.

89th. Did you or not call upon Dr. Jackson to urge him to allow his name to be used in soliciting the patent for the discovery of etherization? And if aye, can you state how often?

Ans. I think I called on him once.

90th. Whether or not you had, in 1846 or 1847, conferences with Dr. H. J. Bigelow and discussions with him as to differences between discovery in a legal sense, and in a scientific point of view—if aye, can you state the substance of this matter?

Ans. I don't remember any.

91st. Whether or not you had some discussions with Dr. Morton as to the amount of your interest in the foreign patent?

Ans. I had no particular discussion, more than what I have stated in my direct answers, that I now recollect.

92d. Whether you remember a walk over the mill dam, or to Brighton, or towards Brighton, with Dr. Morton, or in company with him, when this matter of the foreign patent was discussed?

Ans. I do not.

93d. Whether you remember that, in discussing this matter of the foreign patents, your demand was of eighty-hundredths of the sales under those foreign patents?

Ans. No, sir.

94th. Whether you remember stating to Dr. Morton that you should have eighty per cent. of the foreign patents for managing Dr. Jackson?

Ans. No.

95th. What was the amount agreed on as your interest in the foreign patents?

Ans. I think they were to be taken out, and that whatever amount might be realized to me of net profits were to be divided between Morton and myself.

96th. Whether you remember that, after your letter to the surgeons of the hospital was written, there was some delay in your signing this letter?

Ans. I don't remember any particular delay, or any delay from any particular cause. I might not have signed it on the instant I wrote it. I presume, however, it was signed soon after it was copied by the clerk, as I have no impression that it was copied.

97th. Whether there was not a delay in signing it, or in finishing this letter, till a sum of two hundred dollars was paid?

Ans. I don't recollect anything of the kind.

98th. As to Dr. Morton's position in relation to the dentists in Boston, during the early months after the announcement of the ether discovery, in the fall of 1846: would Dr. Morton sell any licenses to use ether to any Boston dentist?

Ans. I can't speak positively upon that point; but I have an impression that there was some objection which he made to it. I think I advised him on that subject, that it would operate to his injury to pursue a course of that kind.

99th. Whether you remember to have heard Dr. Morton say that he "could pull out all the teeth that were to be pulled," or that he was "sufficient for the dentistry of Boston?"

Ans. That expression I have heard before; but have no recollection of any time when I heard him make it, or of his having made it. I have an impression, however, that I did hear him make some such remark.

100th. Whether you remember, in November or December, 1846, that you said to Dr. Jackson that Dr. Morton had a sum of money to pay him as the amount due to him from the sale of licenses to use ether under the patents?

Ans. I don't remember.

R. H. EDDY.

A.

Dr. Jackson very reluctantly consented to the patentings of this discovery or invention, and that reluctance is explicitly set forth in the application filed at the patent office, but there seemed to be no other way in which he could secure to himself the credit and honor of the *discovery*, with his proportionate reward for the same, and he was unwilling to prevent Dr. Morton from enjoying the benefit of his proportion, he having *executed* the experiments at Dr. Jackson's proposal and by his directions and advice, and thus become associated in the matter. Since Dr. Morton took upon himself the executive duty of applying the ether vapor, and paid the expenses of patentings, Dr. Jackson assigned his right in the

patent to him, and is to receive a tenth part of the net proceeds from sales of licenses in this country. Arrangements of a similar character will probably be made for its use in Europe. The commissioner was requested by Dr. J. to issue the letters patent in the name of Dr. Morton, to whom he had assigned his right before the patent was granted.

Dr. Bigelow is requested to insert the above paragraph in his article. If he does not wish to take the responsibility, he will please say that Dr. J. requests him to insert it.

Respectfully, your obedient servant,

C. T. JACKSON.

SUNDAY, *November 15, 1846.*

This is the paper referred to in this deponent's answer to the 78th cross interrogatory, as annexed and marked A.

J. P. PUTNAM.

COMMONWEALTH OF MASSACHUSETTS, }
Suffolk. } ss.

We hereby certify that the foregoing is a true copy of the deposition, *in perpetuum*, of R. H. Eddy, taken before us upon the petition of William T. G. Morton, under the statutes of this commonwealth.

GEO. T. CURTIS,
J. P. PUTNAM,

Two Justices of the Peace and Counsellors at Law.

BOSTON, *January 11, 1853.*

I, Robert J. Burbank, of Boston, in the county of Suffolk, and Commonwealth of Massachusetts, Counsellor at Law, being first duly sworn, depose and say, in answer to interrogatories by R. H. Dana, jr., Esq., counsel for Dr. Wm. T. G. Morton : As to the taking of the depositions of Leavitt, Spear and Hayden.

1st. What is your residence? Are you and how long have you been a member of the Boston bar?

Ans. I reside in Boston. I am a member of the Boston bar, and have been such for about seven years.

2d. Did you, in 1847, take down in writing the statements of certain persons in Dr. Morton's employment, respecting the ether discovery? If so, when, and of whom?

Ans. I did, in March, about the 23d, 1847, as near as I can now recollect. William P. Leavitt was one. Thomas Spear, jr., and Dr. Hayden were the others.

3d. Please state where, in what room or rooms, and under what circumstances, these statements were taken down?

Ans. It was in one of Dr. Morton's rooms connected with his office, No. 19 Tremont Row. It was not in the room where he performed his operations, but in what I think he then styled the mechanical department. That room was chosen on account of the frequent interruptions from calls from patients in the other. I was requested by Dr. Morton to take these statements in writing. I told him I would do so and was then ready. He said, "we are so very busy, I would like to have you go over there, to my office, instead of taking them here." I assented to it, and went over. I took these statements the same as I should take the statements of any person. I think Mr. Leavitt gave his first. I won't be certain. I commenced and took the statements of those three that afternoon. It occupied till after dark, I am sure.

4th. Who was present? If Dr. Morton, how much of the time, and what part did he take? So as to the others?

Ans. The three persons I have named were present, not all the time, but in and out, about their business in that department. One Mr. Warren, I think they called him. Dr. Warren was in once or twice during the afternoon. I think he was connected with the office in some way at that time, how, I don't know. Dr. Morton was present when I first went there. He went into the room with me. He was there but a small part of the time during the afternoon. He was engaged below. I recollect distinctly the apparatus by which he was called down. He was up several times, and then there would come a whistle through a long tube, and then a call, and he would go down. I don't recollect that he took any part at all. He told me what he wished me to do before I went there. I received no further instructions from him. The others took no part in the matter, but to give their statements, which I took down. I sometimes interrogated them, but I remember distinctly asking each of them to give the facts in reference to the discovery by Dr. Morton, in the precise order in which the facts occurred. The reason why I remember this, and why I so requested them, was, because, from the reports which I had heard of the matter, before I went there, I believed that Dr. Jackson was the discoverer, and I went there a disbeliever in Dr. Morton's claims, and I therefore desired to get an accurate statement from them, for my own information, [and I recollect that I came away with my mind entirely changed in reference to the matter.] Mr. Warren came into the

room twice or three times during the afternoon, and made some such inquiry as this: "How are you getting along?" "Do you want any assistance?" He rendered no assistance.

(The part in brackets objected to. J. P. P.)

5th. Were their oaths taken, and if not, why not? Did they sign them?

Ans. I think their oaths were not taken. They were not by me. I was not then a justice of the peace, our statute requiring two years' practice before the giving of the commission. I am very positive that they did not sign then, and in my presence.

6th. Did you then know Don Pedro Wilson? Was he present at any of the times? Was he, or any person, requested to leave the room, or not to come into it?

Ans. I can't say that I then knew him. I have known him since pretty well. I now know him. He was not present in that room any of the time, to my recollection: and if he had been present, I am sure that I should have recollected it. Neither he, nor any person, was requested to leave the room or not come into it—nothing of the kind.

7th. Did Dr. Morton say anything to any of the witnesses, or in their presence, respecting the subject upon which they were testifying?

Ans. I do not recollect positively as to that. If he said anything, it was but a word or two, because he was in the room but very little. He might have said something to them, or in their presence, but it could not have been much, as he came into the room and inquired "What they had stated," "How far we had got along," or "What had happened in his absence while down stairs."

8th. Did he prompt them, or furnish them with any dates or facts, or make them any assurances as to facts?

Ans. Not the slightest, to my recollection. I should have recollected it, because, under the impressions which I had when I went there, I should not have allowed it. Their said statements appeared to be candidly given, and they were faithfully taken down by me.

9th. Answer the same as to Mr. Warren?

Ans. As to Mr. Warren, I will say no.

10th. Did either witness, and if so, how far, hear or know what the others testified to?

Ans. When I first went there, I think the three who gave their statements were present. While one was giving his statement, the others were about their work. They were very busily engaged, apparently, and I should think several times in the course of the afternoon went out of the room. They seemed to

be busy up stairs and down. I don't know where they went when they went out of the room, but they seemed to be on business. I can't say whether either heard, or not, what the others testified to, but I should think that they could have heard very little. It was not an occasion for a witness to speak loud, as though on the stand, and I had them by the table near me. I should think it very difficult for them to have heard. They might have heard some portions of it.

11th. Did any of these witnesses, and how far, apply to any other for facts or aid of any kind, or did any one prompt or aid another?

Ans. I don't recollect that they did.

12th. If they had, should you have observed it, and why?

Ans. I should think that I should have observed it, and for the reason before stated.

13th. Had you, or had any of the witnesses, a memorandum?

Ans. I had none, and I do not recollect that any of the witnesses had any.

14th. Who committed them to writing? How?

Ans. I committed them to writing. I wrote them down as they gave it. I don't know that in every case I gave the precise words, but I did the substance.

15th. At the time you took these statements, was there anything tending to detract from the value of these depositions, or any of them, as to the state or condition of the witnesses, or any influences they seemed to be under, or their manner of testifying?

Ans. Not in the slightest.

16th. Did you take the statement of Mr. Francis Whitman? When and where? How?

Ans. I think I did not take his statement in full. I think I was about to take it that night, but I had not time. I have a sort of recollection that his statement came to me in some form or other, but I think I did not take it as I did the others.

17th. At the time you took these statements, on which side were your sympathies and prejudices, if either, and how much so? From what cause?

(Objected to as immaterial.)

Ans. When I commenced, they were on the side of Dr. Jackson, for I thought very highly of him. I had seen him at my father's, and at Dartmouth College, when he surveyed the State of New Hampshire, and I thought he was more likely to have been the discoverer. I had received these prejudices from the reports which I had heard. When I left that night my opinion was changed. I had heard nothing more about it than what the public had. I might have heard something from Morton against

Dr. Jackson's claim, but the reports upon which I based my opinion were such as the community had at large.

Cross-interrogatories by A. Jackson, jr., esq., counsel for Dr. Charles T. Jackson.

1st. What was your first acquaintance with Dr. Morton?

Ans. I was first introduced to him by Mr. O. G. Peabody, at my office; it was in relation to some business he wanted me to do for him; this was in the latter part of 1846.

2d. Between the time referred to in 1846 and the time he came to your office, about these statements, had you done any business for him? How often?

Ans. I had; I went out West for him in a matter, and was gone a month and a half for him; it was a matter not connected with the ether discovery; I had done business for him pretty frequently.

3d. What, if you remember, did Dr. Morton say when he came, about your taking these statements of the witnesses, and when was this?

I think he said that he was about to get up a statement of his merits in the ether controversy; and I think, he gave me a statement in my office of what had been done by him and others; this was on the very day when I took the statements; in the forepart of the day, as near as I can recollect.

4th. Do you recollect what you stated to the witnesses, or what Dr. Morton did, when you went with him to his rooms on the day the statements were reduced to writing?

Ans. I do not recollect what either of us stated; the subject was introduced as we went into the room. I think I was introduced to one or two of the witnesses; I think I did not know Spear or Leavitt at that time; I think I had seen Hayden.

5th. Whether you were *brief* in taking the statements?

Ans. I should think we commenced about three o'clock, and it took till dark; it might have been four o'clock; it was along in the afternoon.

6th. Whether you were brief in taking the statement of Leavitt, or were you slow, deliberate, taking full time?

Ans. I can't recollect that there was any difference in time or manner in taking his from the others.

7th. Whether Leavitt was in haste to finish his statement?

Ans. I can't recollect that; it has been so long since that I can't recollect the minutiae.

8th. Was Leavitt, or any of the witnesses, in haste to finish and go to his work, or was he, or any of them, called away to his work while you were at Dr. Morton's rooms?

Ans. I can't recollect that; I don't recollect that that was the case with either witness.

9th. Whether you recollect that Wm. P. Leavitt used these words: "That, about one week after Dr. Hayden came to practice dentistry in connection with Dr. Morton, with whom I was then a student, that is to say, about the 1st of July, 1846?"

Ans. I can't, without refreshing my recollection by an examination of those depositions, and I can't recollect but he did say it. What he did say was carefully taken down by me at the time.

10th. Will you please look at Leavitt's statement, and state whether he used those words above stated in the ninth cross-interrogatory, or whether that was your language?

Ans. I should think that was his statement, but I can't tell without examining the original. The phrase "that is to say," I might have added.

11th. Whether or not, in taken the statements of the witnesses at Dr. Morton's rooms, you took down the exact language of the witnesses, or the substance of it? whether you asked many questions of the witnesses?

Ans. I intended to take down their exact language. I might, in some instances, have taken the substance, but invariably, on doing so, read the same over to them for their correction or adoption. I did not ask many questions. I remember that I occasionally put this interrogatory to them, more than any other, "what happened next," or "what was said next."

12th. Whether you recollect that you put many questions to Leavitt in taken his statement?

Ans. I don't recollect that there was any different ceremony, or manner adopted in taking his statement from that of the others. It did not take a great while to take the whole of them.

13th. So far as you can state, on now looking at the statements in print of these witnesses, how many questions did you put to each witness?

Ans. I cannot tell, I might have put a half dozen, not many. I did not intend to lead them, I wanted to satisfy my curiosity, as much as anything, as to the true merits of Dr. Morton in the ether controversy.

14th. Whether, in taking the statements referred to by you, as to the dates given by the parties, they gave the dates readily, promptly, or with hesitation, delay?

Ans. I should think, from the best of my recollection, they did give these statements as to dates promptly, but deliberately. Some of them they gave promptly. I remember they appeared exceedingly fair.

15th. Whether or not, with reference or suggestion, one witness to another, the statements were given by them?

Ans. I don't recollect that they were.

16th. By "nothing of the kind," in answer to your sixth direct interrogatory, whether you mean absolutely, positively so, or merely whether you did not hear of any request to any person not to come into the room?

Ans. I mean that I did not hear of any such request. I think I should have heard such a request, had it been made, for I was exceedingly circumspect, for the reason I have stated in my previous answers.

17th. Referring to your answer to the 7th interrogatory, did you pause and read what had been stated, while Dr. Morton was away down stairs, on his return after an absence?

Ans. I think I might have done so, but I don't now recollect. My impression is that I did, or gave him the substance of it. I cannot state.

18th. Whether you remember any suggestions or statements of his, if any, after your answer to his inquiries on his return to the room?

Ans. I do not. He might have made some reply, but I do not recollect. It has been so long since, that I cannot now state.

19th. In one answer you spoke of "one Mr. Warren—I think they called him Dr. Warren." What do you know of his writing for Dr. Morton?

Ans. I never saw him write for Dr. Morton. I think I heard him state that he was writing something for Dr. Morton, or had been.

20th. Were the statements of the witnesses taken by you ever sworn to?

Ans. I cannot recollect.

ROBERT J. BURBANK.

COMMONWEALTH OF MASSACHUSETTS, } ss :
Suffolk County.

We hereby certify that the foregoing is a true copy of the deposition *in perpetuum* of Robert J. Burbank, taken before us upon the petition of Dr. William T. G. Morton, under the statutes of this Commonwealth.

GEO. T. CURTIS,
J. P. PUTNAM,

Two Justices of the Peace and Counsellors at Law.

Boston, January 13, 1853.

I, Edward Warren, of the city of New York, of lawful age, being first duly sworn, depose and say, in answer to interrogatories by R. H. Dana, jr., Esq., counsel for Dr. Wm. T. G. Morton:

1st. What is your residence? What was it in 1846?

Ans. I reside in New York; I resided in Boston in 1846.

2d. How long and how intimately have you known Dr. C. T. Jackson?

Relations
of witness
with Dr.
Jackson.

Ans. I first became acquainted with Dr. Jackson in 1836 or 1837; I consider that I have known him intimately; I have had some correspondence with him; he has been often at our house, and I have often been to his laboratory; I was in the habit of meeting him often, and have been on very friendly terms with him.

3d. Please state all your personal knowledge of the discovery and introduction into use of ether as an anæsthetic agent.

Dr. Jackson's claim
in November, 1846,
limited to
remuneration by
Morton ten
per cent.

Ans. I was, at that time, living in a family very intimate with Dr. Jackson's family, and I heard of it through an intimate friend. I, of course, became interested, and I went immediately to Dr. Jackson, about the last of November, 1846, but I can't give the exact date. Up to this time he had kept the article itself a secret, so far as I could ascertain, and my first inquiry was to know what it was—what this "compound," as they called it, was. The Doctor said he did not like to tell me what it was, and I then asked him why he did not compel Morton to do him justice by making the secret known. He replied by saying that he should do so; that, if ten per cent. on foreign sales, as well as on sales made in this country, were not allowed him, he should write out to Europe and publish the whole thing to the world. I urged him to disclose the nature of the agent used, as, up to this time, the last of November, it had been studiously kept as a secret. He declined, saying that it was easily found out; that the public would soon know all about it; and that, at any rate, if he was not properly remunerated, he "would blow the whole thing up." The claim above made, of ten per cent. of domestic and foreign sales under the patent, was all he made as his interest in the matter. That was the extent of his claim, made to me, up to this time. We then had a long conversation in reference to the whole subject of this discovery. I asked him as to the safety of this agent. He answered, and here I pretend to give his own words, that "it should be used with the greatest care; and that it would be very likely to injure the brain if repeated." He furthermore added that there would be great danger in giving it for a long time on any one occasion, or of repeating it, as, if it were, asphyxia, coma, or even death itself might ensue. I then asked Dr. Jackson what share he claimed in the discovery. He replied

Contrast
this with
his present
claim that
he had as-
certained
its entire
safety in
1842.

by saying that the so-called discovery was not his; that Dr. Morton was responsible for it; that he was not answerable for the results, fearing that accidents might ensue from the use of this "compound," and that, therefore, he would refer me to Dr. Morton for further information. What I have stated above is the substance of a long conversation I had with him at that time, so far as I can recollect it. I recollect very distinctly what I have stated.

Express declaration by Dr. Jackson that the 'so-called discovery' was not his, and that Dr. Morton

4th. What did Dr. Jackson say, if anything, about any previous experiments or observations of his own?

Ans. I can't recollect that he alluded to that subject.

was responsible for it.

5th. What did he say that he had advised or suggested to Dr. Morton?

Now, he claims that he (Jackson) was alone re-

Ans. My belief is, that he stated to me that this new agent was first mentioned by Morton, and that Morton asked him as to its nature and safety, and inquired if he could not give it to his patients. Dr. Jackson stated that he replied in the affirmative. There was considerable conversation on this subject, but I am unable to recall distinctly anything further.

sponsible, and that the discovery was his.

6th. At this time did you know Dr. Morton? What was the object of your visit to Dr. Jackson?

Jackson's statement that Morton had mentioned ether, and his opinion of its safety.

Ans. I never had known Dr. Morton. I had two objects in visiting Dr. Jackson. The first was to ascertain something in relation to the nature of the new discovery, and the second was to make some pecuniary arrangement, by which I could visit Europe on matters pertaining to it. With regard to pecuniary matters, Dr. Jackson distinctly stated that he had nothing to do with them, and referred me to R. H. Eddy, esq., and Dr. Morton himself.

Witness then unacquainted with Morton.

7th. What did you do thereupon?

Ans. I went immediately to Dr. Morton and introduced myself, saying that Dr. Jackson had referred me to him in relation to the whole matter.

8th. Are you conscious of any personal prejudice or preference in favor of Dr. Morton rather than Dr. Jackson, irrespective of the merits of their claims?

Ans. No, I certainly am not. My preferences are all with Dr. Jackson, having previously been on the most friendly terms with him.

9th. If, in this conversation, Dr. Jackson had said that he had himself made any experiment, or observation, before his interview with Dr. Morton, from which he inferred or suspected that this agent would produce total insensibility, or had said anything to that effect, should you or not remember it?

No claim of previous experiment.

Ans. I think I should have remembered it. My opinion is that he did not say anything on the subject.

*Cross-interrogatories by A. Jackson, jr., Esq., counsel for Dr.
Charles T. Jackson.*

1st. Will you state what was your situation with Dr. Morton, after your connection with him,—what you did in this connection with him,—what interest, if any, you had in his ether patent,—what books, letters, or pamphlets you wrote, &c.?

Ans. We had a great variety of connections. When I went to Washington, I was to have a small per centage of the sales which I made there, if any. I received forty dollars under that arrangement. I had no interest in the patent, except, as I have just stated, in the sales. I wrote a short pamphlet on it, if it may be so called, which was subsequently twice enlarged. With regard to letters, I can't recall the letters which have passed on the subject. After the arrangement above spoken of was closed, I went to Europe, and there was a sort of tacit understanding that, if a grant was made to Drs. Morton and Jackson, I should be remunerated. I received from Morton four hundred and twenty-five dollars as a part of my expenses to Europe, and subsequently I gave him a receipt in full, without having received any more.

2d. With whom had you this understanding, spoken of in the last answer?

Ans. With Morton.

3d. Whether, after your first connection with Dr. Morton, you had occupied one of his rooms in Tremont row?

Ans. I did, for a few months.

4th. How long? Up to what time?

Ans. I think from about the 1st of March, 1847, until the last of July.

5th. Whether you wrote the article in the Boston Medical and Surgical Journal, of Dr. Smith's, in Wednesday's number, April 28th, 1847, p. 260, and the article in the same publication of Wednesday, July 28th, 1847, p. 520?

Ans. Yes, sir.

6th. What was the name of the pamphlet you spoke of as written by you?

Ans. I don't remember the name of the first. The last one, and perhaps all, was called "The Letheon, or Who is the Discoverer."

7th. How many editions of this pamphlet were published?

Ans. I should say three editions, each being larger than the preceding.

8th. Was one of the pamphlets written by you called "The Voice," or "A Voice from Europe?" Did you write any articles that were published in the Boston newspapers?

Ans. The pamphlet called "A Voice from Europe," was not written by me. I did write articles published in the Boston newspapers.

9th. Do you know anything of a pamphlet entitled "On the Physiological effects of Sulphuric Ether, and its superiority to Chloroform," and who wrote it?

Ans. I know nothing about it. I have seen it, but had no connection with it.

10th. Did you, during the time you were with Dr. Morton, see Mr. R. H. Eddy present in his rooms? If aye, how often?

Ans. I do not recollect that I ever saw him there, but, if he called during the time I was there, it must have been very seldom, for I should have seen him and recollected it.

11th. Did you know from Dr. Morton, or from Mr. Eddy, anything about a letter to the surgeons of the hospital, which Mr. R. H. Eddy was to write in the spring of 1847?

Ans. I have no recollection of it now.

12th. Did you know anything, in the spring of 1847, of a sum of money which Mr. R. H. Eddy demanded of Dr. Morton, and which Dr. Morton had some difficulty, and some delay about paying?

Ans. I have some recollection of an amount of money which Mr. Eddy claimed from Dr. Morton, for some reason.

13th. Whether you recollect that this sum of money was two hundred dollars?

Ans. No, sir. I don't recollect the sum.

14th. Will you state what Dr. Morton said about this sum of money which Mr. Eddy demanded?

Ans. I am unable to recall any conversation which I heard, or had with Dr. Morton, on the subject.

15th. Do you remember that Mr. Eddy refused to sign his letter to the surgeons of the hospital, unless the sum he demanded was paid to him?

Ans. I am unable to recall anything relating to that matter whatever.

16th. Do you remember that Dr. Morton said he could not get the letter of Mr. Eddy, unless he could raise and pay Mr. Eddy the money he demanded?

Ans. I have no recollection of such a conversation.

17th. Whether you remember that Dr. Morton obtained and paid Mr. Eddy the sum of money he demanded, in the spring of 1847?

Ans. My impression is that that claim was adjusted.

18th. If you cannot recall any conversation of Dr. Morton on this subject, can you state the substance of the claim of Mr. Eddy—what it was for—whether there was delay in settling it, and, if delay, how long?

Ans. My impression now is that Mr. Eddy set up a claim for something under the patent, but what it was I cannot remember. I am not able to answer as to the length of the delay to settle it. I think there was some difference of opinion about it.

19th. By what means, or agency, or how did it happen that you came to Boston from New York, to give your testimony here? Whether Dr. Morton called on you in New York?

Ans. Dr. Morton wrote me to New York from Washington, asking me if I was willing to give my testimony. I had other business, however, which I came here for. I certainly should not have come here otherwise.

20th. Did Dr. Morton call on you recently, on his way through New York to Washington, within a month, or thereabouts?

Ans. I never saw Dr. Morton in New York.

21st. When you went to the laboratory of Dr. Jackson, as testified about in answer to 3d interrogatory, and asked about the ether matter, and about some pecuniary arrangement, did Dr. Jackson state to you that the patent was not his, but that that belonged to Morton, and that his interest in the patent was ten-hundredths of the sales?

Ans. Dr. Jackson disclaimed *in toto* all connection with the thing, business matters, discovery, and everything else. He disclaimed the whole to me. His claim was to the extent of ten per cent. on sales made in this country and abroad. That was the extent of his claim when I called upon him.

22d. Whether he stated to you that the patent was improperly or wrongly obtained, and that he would blow it up?

Ans. No, sir.

23d. What did Dr. Jackson say about his interest of ten-hundredths of the sales under the patent?

Ans. Dr. Jackson told me that ten per cent. on sales in America had been conceded to him, and now, at this time, he demanded ten per cent. on foreign sales in addition, adding that, if this was not likewise conceded, he would blow the whole thing up.

24th. As to the safety of inhaling ether; whether you remember that Dr. Jackson spoke of reports that had been brought to him of the carelessness or recklessness of Dr. Morton in using it, or of injuries or accidents to people to whom Dr. Morton had administered it?

Ans. I think Dr. Jackson stated to me, in substance, that Morton was a reckless man, that he was administering the compound in a dangerous manner, and that he would be likely to kill somebody with it.

25th. Have you any memoranda of this interview? How full, or otherwise?

Ans. I have a brief memoranda of it.

26th. Where were these memoranda made?

Ans. In Dr. Morton's office.

27th. When were they made?

Ans. I think in March or April, 1847.

28th. Why were they made?

Ans. The discovery had assumed a very important shape, and I supposed that everything relating to the matter might be of deep interest.

29th. What did you do with these memoranda after they were made?

Ans. I made no account of them, nor has any human eye, save my own, ever seen them until 1852. Neither did Dr. Morton, nor any other person, know of their existence.

30th. To whom, if any person, have they been shown, since they were made?

Ans. They have been seen only by my brother, H. A. Warren, and by R. H. Dana, jr., to whom I read certain extracts merely. No one has ever taken them out of my hands.

31st. Is it your habit to make memoranda of conversations?

Ans. In some important cases it is.

32d. Did you have these memoranda you have spoken of, with you, or before you, when you wrote the articles published in the *Boston Medical and Surgical Journal*?

Ans. No, I did not.

33d. Where were these memoranda then?

Ans. I don't recollect exactly; they were among my papers; these facts were too fresh in my memory at that time to require any memoranda.

34th. When did you put them among your papers, and when take them from your papers?

Ans. They were with my papers from the time they were written until March, 1852, when I looked them over, having, in the mean time, almost forgotten that they were in existence.

35th. Did you ever state the facts you have spoken of here and testified about, to Dr. Morton?

Ans. Certainly; probably often?

36th. Did Dr. Morton, or any one in his behalf, call on you to give your deposition, or to write a letter embodying what you knew of this matter, before the present time?

Ans. Yes; Governor Brown, of Mississippi, then a member of Congress, and, I think, a member of the Congressional Committee on the subject of the ether controversy, addressed me a letter in March, 1852, asking me to state what I recollected of my first interview with Dr. Jackson on this subject. I replied to that letter; I have not the reply here; my papers are all in New York; I sent the reply to him; the substance of that reply I have stated in answer to the third direct interrogatory.

37th. Where have these papers been while you have been absent in California?

Ans. They have been locked up in my trunk, in my uncle's office, in Court street, in Boston, a part of the time, and the

remainder of the time I think they were in the hands of my brother, in Boston; they were locked up, and I had the key.

38th. Whether your testimony here is founded on the papers and *memoranda* you have spoken of, or whether you recollect what you have testified about independently of such papers?

Ans. I recollect the principal facts, and that recollection is strengthened and confirmed by my *memoranda*.

39th. What did you do with the manuscript of the various articles you have written on the ether question—did you keep these—have you a bundle of ether papers, pamphlets, and articles written by you, and *memoranda*?

Ans. I have kept the manuscripts, all of them, I believe, and have them now; they never have been out of my possession; I have a bundle of papers and *memoranda*.

40th. Were the *memoranda* spoken of by you in answer to the 25th interrogatory, as shown to Mr. Dana and others, kept with these papers, &c., last above spoken of?

Ans. I do not recollect that I have shown any of the papers whatever relating to this matter to any person, save the *memoranda* before referred to. They were all kept together.

41st. Before the communication to you spoken of as by Gov. Brown, in answer to 36th cross-interrogatory, requesting your account of an interview with Dr. Jackson, had Dr. Morton, or any one in his behalf, requested your deposition, or written statement?

Ans. No, sir. Dr. Morton had asked me if I was willing to reply to a letter from Gov. Brown. I answered that I was. That is the only request which has been made of me on that subject, that I now recollect.

42d. When did Dr. Morton ask you this? Where? Had he made any request to you before this time for your deposition, or letter?

Ans. He had not made any such request before this time, to my recollection. He asked this of me in Washington, in March, I think, 1852.

43d. Whether or not, in what you have written and published, you have labored to make it appear, and to make people believe, that Dr. Morton was the discoverer?

Ans. Most certainly. I believed it, and so labored to prove.

44th. When and where did you first know Dr. C. T. Jackson?

Ans. My first recollection of meeting Dr. Jackson was in Bangor, Maine, in 1836 or '7.

45th. What was Dr. Jackson doing in Bangor? How long was he there? What was your occupation there and then?

Ans. Dr. Jackson had been, or was then, engaged in making a geological survey of Maine, but was at this time giving a course of lectures on geology. I can't state how long he was there. I was in the mercantile business there.

46th. How often did you see Dr. Jackson in Bangor? Where did you live then? At a hotel? Where did Dr. Jackson stay?

Ans. I think I saw Dr. Jackson almost daily while he was there preparing for his lectures, and was often with him in his lecture-room. I saw him also frequently at our own house. We were keeping house at that time, I think, in Harlow street. I do not recollect where Dr. Jackson lived.

47th. In what mercantile business were you engaged in Bangor at the time spoken of? Had you much leisure, or were you engaged much in your business?

Ans. I was engaged in the grocery business, with my brother and another partner, and had a good deal of leisure.

48th. Where was your place of business in Bangor? What was the name of the firm?

Ans. I can't recollect the name of the firm, but the partners were H. A. Warren, a Mr. Goodhue, and myself. I think the place where we did business was called West Market Square.

49th. Who composed the family, as you have spoken of it as *our house*, in Harlow street?

Ans. Henry Warren, H. A. Warren, and myself, with one or two sisters.

50th. How often, before 1846, had you been in the laboratory of Dr. Jackson? How often, if ever, since 1846?

Ans. Before, occasionally, but how often, I am unable to say. Since that time, I think I have not been in it at all.

51st. What correspondence have you had with Dr. Jackson? Please state this at length.

Ans. I had some correspondence with Dr. Jackson, I think in the winter of 1836-'7, on the subject, I believe, of giving lectures in Bangor. In 1847, I received one or more letters from him while I was in Washington.

52d. What called forth these letters to you in 1847? Upon what subject were they?

Ans. Principally on the subject of Dr. Wells's claim to the then new discovery. I can't say what called forth the letter. I think it was no movement of mine, but that it was entirely on Dr. Jackson's part.

53d. Was any other subject mentioned than Wells's experiments in these letters? How many letters were there? Were they published?

Ans. I think Dr. Jackson, in one of those letters, speaks of his claims to the discovery. I do not now recollect of but one letter. They were not published, but merely some brief extracts in one of my pamphlets.

54th. Have you the letter of Dr. Jackson referred to? If aye, will you produce this?

Ans. I have it in New York, and cannot now produce it.

55th. Will you send this to the magistrate, to be annexed to this deposition?

Ans. I, at present, see no objection whatever.

56th. In this interview at Dr. Jackson's laboratory, spoken of by you, whether you remember that you stood in one corner and had your conversation?

Ans. I do not recollect. My impression is that we sat or stood near the door.

57. How long was this conversation in the laboratory? Five, ten, or fifteen minutes?

Ans. From my present recollection, it continued at least half an hour, and probably longer.

58th. Whether you remember that you stated to Dr. Jackson, when you went to his laboratory, that you suffered from weakness of eyes, and wanted some employment which would not try your eyes?

Ans. It is highly probable that I did, as I was suffering under an attack of amarois in one of my eyes, but my impression is, that the conversation with regard to my eyes was had at another time, since I recollect of applying to him for admission into his laboratory as a student of chemistry, when the subject of my weak eyes was brought up.

59th. Whether you remember that you asked Dr. Jackson if he could find something for you to do in his laboratory, at the interview spoken of in answer to third interrogatory?

Ans. I think, at this time, nothing was said about giving me employment in the laboratory.

60th. Whether you remember that Dr. Jackson stated to you that chemistry was the worst thing in the world for weak eyes, at this interview spoken of in answer to third interrogatory?

Ans. No, sir. I think he said very near those words, but, from my present recollection, it was at a previous interview.

61st. Whether you remember that you asked Dr. Jackson if you could find employment as agent in disposing of patent licenses, at this interview spoken of in answer to third interrogatory?

Ans. I may have done so.

62d. Whether you remember that Dr. Jackson said he had nothing to do with selling rights, or licenses?

Ans. He certainly said that, or words to that effect, for he disclaimed all participation not only in the patent, but in the discovery itself, further than as giving a hint.

63d. Can you give the *words* of Dr. Jackson in his reply to you?

Ans. I am unable to state his precise words.

64th. Whether you remember that you asked Dr. Jackson "who had it," and that Dr. Jackson said that Dr. Morton traded in licenses?

Ans. Dr. Jackson referred me to Dr. Morton for information in regard to the whole subject. I do not recollect of his using the words inquired about.

65th. Whether you remember asking Dr. Jackson where Dr. Morton's place was, and if he would employ you?

Ans. It is probable I asked where his place was, but have no recollection of asking if he would employ me.

66th. Whether you remember that Dr. Jackson said you had better have nothing to do with it, for that he should blow up the whole business of speculating in licenses to use ether?

Ans. I can't recall any conversation on that subject; but my belief is that there was none of that import.

67th. Whether you remember that Dr. Jackson said Morton had behaved very badly, and had disgraced the discovery, and that you said you would go and see him, and that you then went away?

Ans. I do not recollect that he said he had disgraced the discovery, but that he said in substance, that Dr. Morton would disgrace it, or kill somebody. Dr. Jackson expressed, at this time, some dissatisfaction with Dr. Morton.

68th. Whether or not, you remember that all the conversation with Dr. Jackson was had with him standing near the door of his laboratory, he standing near you all the time you were present?

Ans. My impression is that we both sat and stood during the conversation.

69th. Whether you remember a draft of \$75 from the West, payable to Dr. Jackson, and that Blaisdell came to Dr. Jackson, who said that he would have nothing to do with sales of patent licenses, and that you wrote to the man out West about his draft?

Ans. I have no recollection of the matter.

70th. Will you please state your occupation in Boston, in the fall of 1846?

Ans. I was engaged in the oil business, as a commission merchant, up to the time of my first interview with Jackson and Morton.

71st. When did you go to Europe about the ether matter? How long were you there? What did you do for Dr. Morton and his interests there?

Ans. I went the first of August, 1847. I was there about ten months, during which time I urged Morton's claims, both in Great Britain and on the continent, as earnestly as I was able.

72d. Whether you stated that you were in England and on the continent, in Morton's behalf?

Ans. I dare say. I have always stated that I went abroad on that subject, on Morton's behalf.

73d. Whether you remember receiving a letter from Dr. Morton, with a number of Littell's Living Age, and a French translation of Morton's letter?

Ans. I think I did receive them. I received various packages from Morton on that subject, while in Paris.

74th. Can you state the number of the pamphlets you received, and will you produce the letters referred to as received from him? Have you the letters?

Ans. I am unable to state the number of pamphlets, but I received several. The letter, or letters, are in New York, and I am unable, therefore, to produce them.

75th. Can you state what Dr. Morton wrote to you in the letters referred to?

Ans. I cannot.

76th. Whether you remember that he wrote, "Do nothing without consulting Dr. Jacob Bigelow," then in England, or then going to England?

Ans. I think his letters contained nothing of the sort. He desired me to confer with Bigelow, as I now recollect.

77th. For what purpose, and to what end? What did he write about this?

Ans. About Dr. Morton's interests generally, in relation to the discovery, I suppose.

78th. Did Dr. Morton write that he sent any copies of his French pamphlet, or any pamphlet, when Dr. Bigelow went to Europe?

Ans. I think he did.

79th. Whether you received any pamphlets when Dr. Jacob Bigelow went to England? How many? Did you see Dr. Bigelow in Europe?

Ans. I believe I received none by him. I did not see him.

80th. Did Dr. Morton write that he had sent ten thousand copies of Littell's *Living Age* to every minister of religion, to every learned society, &c.?

Ans. I think Dr. Morton wrote me that he had sent ten thousand copies abroad.

81st. Will you send the letter referred to to the magistrate, to be copied and annexed to this deposition?

Ans. I now see no objection.

82d. Did you visit each member of the French Academy with copies of the French pamphlet of Dr. Morton?

Ans. I did not; I only spoke to two members of the French Academy, Velpeau and Arago, and I think no other. I saw Velpeau, I think, twice, and Arago the same number of times;

These contained Dr. Morton's memoirs, and a few fragments of evidence, with remarks. I attended the sessions of the Academy quite often—from twelve to fifteen times.

83d. The members of what French society did you visit with copies of any of Dr. Morton's papers?

Ans. I sent Dr. Morton's pamphlets to the Academy of Medicine, if my memory serves me, but to no other public bodies, I

think. I met frequently with a society bearing the name, I think, of the Parisian Medical Society, composed of foreigners—English and American, mostly—and gave the pamphlet to many others—to all I could find who wanted them.

84th. Do you remember being present at a Parisian Medical Society, so called, composed of English and American dentists; and that you there stated that you were there as a friend of science and truth, and not in Dr. Morton's employment?

Ans. I have no recollection that such a body exists in Paris, or that I ever stated words to that effect anywhere.

85th. Do you remember being present with some society in Paris, where Dr. Brewster was present, and Dr. Willis Fisher, of New York, was present?

Ans. I do; it is the society I above referred to, but not composed of dentists.

86th. Do you remember any such statement as a bore in 84th interrogatory asked about before this society?

Ans. I do not.

87th. Did you state, before such society, that you were in Dr. Morton's employment?

Ans. I am unable to say; but it was well known that I appeared there for the sole purpose of asserting and defending Morton's exclusive claims.

88th. Do you remember that, in England, you stated that Dr. Morton was an Englishman, from Worcestershire?

Ans. I certainly never said so.

89th. Whether you remember stating, after your return from Europe, that you entered into the ether matter with Dr. Morton, to make money out of it?

Ans. I dare say I did.

90th. Whether you remember speaking in Bangor, (as if apologetically,) for acting for Dr. Morton, and that, to the statement to you that it was supposed you acted as a "quasi lawyer of Dr. Morton's," you stated there, "You are mistaken,—Morton was in my employ;—I put Morton up to claiming the discovery, and my object was to make money out of it, but it failed?"

Ans. I have no recollection of stating any of it, neither is it possible that I could have so stated. I may have said, that my object was to make money.

91st. Whether you remember that you stated, in the fall of 1846, or in 1847, that, whether Morton was the discoverer, or not, of etherization, you meant to prove him such?

Ans. I don't think I ever made such statement.

92d. When you went to Washington, what was the sum sought for from Congress for Dr. Morton?

Ans. I don't recollect that any definite sum was demanded.

93d. Was not twenty thousand dollars the sum sought for, or proposed to be paid for the use of ether in the army and navy?

Ans. I have no recollection of it.

94th. With whom did you board, when in Washington?

Ans. About a dozen members of Congress. I don't recollect what was the name of the hotel.

95th. Was Hon. H. Hamlin, one of the members?

Ans. He was.

96th. Whether you remember stating, at Washington, that Dr. Jackson was the discoverer of the use of ether for preventing pain in surgical cases?

Ans. I never stated anything of the kind.

97th. Whether you remember conversing with Hon. H. Hamlin?

Ans. My impression is that I conversed with him frequently on that subject.

98th. If Hon. H. Hamlin should state to you that you so stated to him, as is set forth in 96th interrogatory, would that affect your present memory as to what you then said?

Ans. It would not. I should say that he had entirely misunderstood me.

99th. Whether you remember any statement from Dr. Morton of Mr. Eddy's estimate of the value of his interest in the ether patent?

Ans. I do not.

100th. What written papers had you with Dr. Morton, setting forth any of the various arrangements between you?

Ans. I think there was but one contract between us. The purport of it was that I was to have a certain per centage on sales effected by myself.

101st. Whether in your writing in behalf of Dr. Morton, you have read and studied over the various publications and pamphlets concerning the ether discovery?

Ans. Only those published prior to August, 1847, with two or three exceptions.

102d. Since your return from Europe, where have you lived, and what has been your occupation?

Ans. The first seven months I lived in Boston; the next year, in California, and subsequently to my return, I passed the most of my time in Boston. My occupation has been of a general character. I have merely been looking after my private business affairs.

103d. Whether, in your memory at this present time, you can separate impressions and facts that you have learned from the publications and by conversations with Dr. Morton, from what you originally knew and otherwise learned?

Ans. I think I can.

Direct resumed by Mr. Dana.

1st. Do you recollect a conversation in Washington with Hon. James Dixon? When and what was it?

Ans. While in Washington, endeavoring to induce our Government to introduce this discovery into the army in Mexico, and after getting the matter referred to a select committee of the House of Representatives, I learned with some surprise, that the Hon. James Dixon, a member of Congress from Connecticut, and townsman of Dr. Wells, had sent in a sort of informal protest to the committee's further proceedings, until a constituent of his, Dr. Wells, had furnished certain testimony in his favor. This was early in January. I immediately called on Mr. Dixon, who stated that Dr. Wells had requested his assistance, and had promised to furnish him certain evidence of his claims; but, having gone to Europe without procuring it, he did not think it would arrive at all, and, if not by a certain day, then near at hand, he would aid me in my efforts; at the same time saying, as near as I can recollect, that, about two years before, he had heard that Dr. Wells was making some experiments with nitrous oxide gas, to prevent pain in extracting teeth; that, having a severe toothache, he called on him, proposing to take this gas, but that Dr. Wells informed him, that, after giving it to thirteen or fourteen patients, with only partial success, he had abandoned its use as dangerous, and dissuaded him from resorting to it.

Wells's claim.—
Statement by Hon. J. Dixon that Wells had declined to administer the nitrous oxide to him, declaring that he had abandoned it, as dangerous, &c.

EDWARD WARREN.

COMMONWEALTH OF MASSACHUSETTS, }
Suffolk County, } ss.

We certify that the foregoing is a true copy of the deposition in *perpetuam* of Edward Warren, taken before us upon the petition of Dr. Wm. T. G. Morton, under the statutes of this Commonwealth.

GEO. T. CURTIS,
J. P. PUTNAM,

Two Justices of the Peace and Counsellors at Law.

Boston, January 14, 1853.

I, A. L. Peirson, of Salem, in the county of Essex, and commonwealth of Massachusetts, of lawful age, physician, being first duly sworn, depose and say, in answer to interrogatories by R. H. Dana, jr., esq., counsel for Dr. William T. G. Morton:

1st. Are you a surgeon and physician, and how long have you been so? What is your place of residence?

Ans. I have been a surgeon and physician since 1816. I reside in Salem.

Consulting surgeon of the Massachusetts hospital.

2d. Have you been, and for how long, a consulting surgeon of the Massachusetts General Hospital?

Ans. I have been for about ten years, but am not now.

3d. Have you known, and how long, Dr. Charles T. Jackson?

Ans. I have known him for twenty years considerably, especially the latter part of the time.

Relations with the parties.

4th. When did your acquaintance with Dr. Morton begin?

Ans. In October, 1846.

5. Please state all your recollections and personal knowledge respecting the first introduction of ether.

Ans. I first learned of it through the newspapers; I think through a notice that a dentist in Boston had discovered an agent which prevented pain in the extraction of teeth—either an item or a puffing notice, I cannot tell which. On the 28th of October I attended a meeting of the American Academy of Arts and Sciences for the purpose of hearing an eulogy upon John Pickering. The meeting was held at the rooms of the society in Tremont street. On entering the rooms, I found Dr. John S. B. Jackson and Dr. Charles T. Jackson, and perhaps others, engaged in conversation upon the subject of this agent. As it was a matter in which I was exceedingly interested, I joined the group. I made my inquiries of Dr. Charles T. Jackson as to the nature of it, who answered me readily, and communicated such information as he chose with regard to it. I understood that it was a compound in which ether was predominant. This induced me to select Dr. Jackson as my walking companion from the hall to the King's Chapel, where the eulogy was to be delivered, and back. [I was surprised to find that he did not consider it of very

Oct'r 28, 1846, Doct. Jackson considered the discovery as of no great importance.

Did not think much of the ether

great consequence.] He said he had made several discoveries, which benefited others, from which he had received no benefit; and he had now discovered something which he thought important to the dentists, to wit, the preparation or precipitation of gold in the form of a sponge—spongy gold he called it—which the dentists used for filling teeth, and he meant that they should pay him for that discovery. He said, in substance, that he did not think much of the ether, but he thought the other important. I

don't know but I put that too strong, in saying that he said he did not think much of it, but that he did not think so very much of it. [He appeared very desirous to communicate to me all I wanted to know on the subject, except as to the nature of the fluid.] He was very generous and kind in his communications.

I afterwards waited upon Dr. Morton, with whom I had no acquaintance, in order to see him, if possible, extract a tooth without pain. No opportunity for the experiment occurred. I recollect now that Dr. Jackson told me, in the conversation which I have detailed, that common ether would not do, and that the best ether could be obtained in Philadelphia. He said it must be highly rectified. Dr. Morton, when I called upon him, received me very politely, and gave me any information which I desired, except that he did not tell me that it was nothing but common ether which was used. I knew at this time that the discovery was patented. Dr. Morton gave me permission to use it as much as I pleased, furnished me with a two-quart bottle of Letheon, as the ether was then called, a globe to contain the sponge saturated with the ether, and a suitable mouth-piece to respire it, and instructed me generally about the mode of using it; for all of which I paid him ten dollars. I occasionally applied to Dr. Morton for information on practical points, which he cheerfully gave. I afterwards induced Dr. Fiske, one of our prominent dentists, to purchase of Dr. Morton the right to use it.

(The part in brackets objected to.

J. P. P.)

6th. At the time of the interview with Dr. Jackson, was your interest in the subject connected with surgery?

Ans. Entirely so. I was greatly excited on the subject of an agent which would take away pain in surgical operations. It often deprived me of sleep. It had been the great desideratum of my professional life, and I saw that, if it turned out true, it would totally alter the whole current of my practice; so that my visits to Boston on this subject were very frequent, costing me in a year more for passages to Boston than a season ticket.

7th. Did you or not endeavor to get from Dr. Jackson all the information you could respecting it?

Ans. Yes, sir; more as a chemist and savaan than as a practising physician.

8th. How long were your conversations with him that day?

Ans. We talked four or five minutes in the hall, before the procession. It was the constant subject of our conversation in going to the meeting-house, in the meeting-house before the services, and on our way back.

9th. In the conversations of that day, did he make any allusion to his having performed any experiment upon himself?

Ans. None that I remember.

10th. Did he then make any allusion to his having made the discovery several years before?

No allusion by Jackson to previous experim'ts or discovery.

Ans. No, sir, not that I remember.

11th. Did he express any opinion as to its efficacy in surgical cases?

Dr. Jackson leaves witness under the impression that it was "a compound." Ans. I have some vague notions that he did. I inquired of him, while in the church, if the same things could not be done with nitrous oxide gas, and whether this gas, as well as ether, could not be used to prevent pain in *continued* surgical operations, to which he answered affirmatively.

12th. Did he tell you what the composition of this agent was? When you left him, did you suppose it to be a compound?

Ans. He told me no farther than that ether was used in it, and that it must be very pure. He gave me reason to think that there were other important elements. I thought it was sulphate of morphia, or some narcotic. When I left him, I supposed it to be a compound.

13th. Did he make any, and what comparison, as to their importance, between the discovery of this agent and his discovery about the gold?

Ans. He considered the spongy gold as more important to dentists than the ether. The conversation seemed to be confined to dentistry, and did not touch much upon surgery at that time. At this period in the history of the discovery of ether, it appeared to be regarded principally as an affair of the dentists, and that was the reason, probably, that Dr. Jackson did not consider it of more importance.

14th. Was its success in surgery then considered by you as problematical? How was it treated by Dr. Jackson in that respect, if he alluded to it at all?

Ans. Somewhat so, though I inclined to the opinion that it would produce a great epoch in surgery. I was fearful that it would prove a failure. I cannot remember whether Dr. Jackson alluded to it in this respect, or not.

Claim of the magnetic telegraph. 15th. Did he say anything, and what, at this time, about the magnetic telegraph? [Objected to as immaterial. J. P. P.]

Ans. I cannot remember distinctly, but I think he claimed to have suggested that discovery. [The answer objected to as the thought of the witness, and not a recollection of a fact.]

16th. Had you yourself heard about Dr. Wells's experiment with nitrous oxide gas in Boston?

Ans. I do not remember that, at that time, I had heard of Dr. Wells's using nitrous oxide gas for the same purpose as ether is now used.

17th. Were you present at an experiment at the Massachusetts General Hospital? Please state all that took place.

Ans. I recollect being at the Hospital, to witness operations, when it was said that Dr. Morton's compound was to be tried. As there was unusual delay previous to the surgeons officiating, I learned that the cause of it was an objection to using a patent

medicine, as violating the rules of the Medical Society. The surgeons had retired for consultation upon the matter, and Dr. Henry J. Bigelow soon after appeared, and stated to me that all objections had been removed by a letter from Dr. Morton. Dr. Morton appeared, prepared to administer his agent, and, I think, administered it.

18th. Was Dr. C. T. Jackson present? What reason have you for remembering this? What, if anything, impressed this, then or afterwards, upon your mind?

Ans. Dr. C. T. Jackson was not present, to my recollection; it did not occur to me at that time that it was surprising that Dr. Jackson was not there; but afterwards, when a controversy arose between Morton and Jackson as to the discovery, I wondered that I had seen no more of Dr. Jackson at the operations during the years 1846 and 1847.

19th. In what you have said about Dr. Jackson's reply to your question about nitrous oxide gas and ether, did you and he refer to it as a matter of certainty, or of mere suggestion, or how otherwise?

Ans. As a matter of very great probability; we, both of us, so considered it.

20th. Whether or not, did Dr. Jackson's answer refer as well to nitrous oxide gas as to ether?

Ans. It did—rather more so; my remark referred rather to nitrous oxide gas than to ether.

Cross-interrogatories by A. Jackson, jr., esq., counsel for Dr. Charles T. Jackson.

1st. Can you recall, so as to state what Dr. Jackson said at the hall, you having referred to this in your answer to the fifth direct interrogatory, where you said Dr. Jackson stated what he chose?

Ans. No, sir; I could not possibly recall the words, nor can I recall the substance, the information has become so mixed with what I have subsequently heard.

2d. Whether you can now recall the conversation with Dr. Jackson in the walk with him, so as to state whether he said to you that he told Morton that the ether must be given in a large volume, at once, suddenly, to produce its effect?

Ans. I have no recollection that he told me any such thing.

3d. Whether you remember speaking, in this walk with Dr. Jackson, about Wells and his experiments?

Ans. Not to my recollection; I presume I did not.

4th. Whether, in this walk, Dr. Jackson said that the ether must be washed to rid it of its impurity?

Ans. He either told me so, or knowing that that was the way

to purify it, I took it for granted; I am inclined to think that he told me so.

5th. Whether, in this walk, Dr. Jackson spoke earnestly of the *safety* of inhaling ether?

Nothing said about the safety of ether.

Ans. I have no recollection of his saying anything about safety; I don't think the subject was broached between us.

6th. Whether you remember that he spoke of Dr. Wm. F. Channing, and of his inhalation of ether?

Ans. I have no recollection of it.

7th. Whether you remember that, in this walk, he spoke of putting in essential oils to gratify Dr. Morton in disguising the odor of the ether?

Ans. Not to my remembrance.

8th. Whether, in this walk, he spoke of the *mode* of preparing the ether?

Ans. No, sir. There were no remarks which necessarily led to it.

9th. Whether he gave an account of how he became connected with the ether patent?

Ans. I have no recollection of his saying anything about the patent.

10th. Whether or not, the great burden of the conversation with him, at the time of the walk, was, of the necessity of using pure, highly rectified ether, and that it would not do to use the alcoholic ether of commerce?

Ans. No, sir; that was not a prominent remark. I rather think that was said while we were in the church, or walking home. In the first place, my object was to ascertain whether an anæsthetic effect could be produced by inhalation; and, second, how it could be done; and, third, by what agents; and therefore, it would, probably, be under this last head that I got any knowledge about the qualities of the ether.

11th. Whether you can recall any account from Dr. Jackson, on that day, the 28th of October, of first, washing the ether with lime water; and second, of washing it afterwards with water?

Ans. I have not the least recollection of either circumstance.

12th. Did Dr. Jackson speak with you of the origin of this discovery of etherization, in the walk with him spoken of in your answer to the fifth direct interrogatory?

Ans. He did not at that time; subsequently he did, but when, I have no idea. Subsequently he told me he injured his lungs in breathing chlorine gas, and respired ether as a palliative.

13th. How long before the meeting referred to in your answer to the fifth direct, was it that you saw the notice or advertisement referred to by you? In what paper did you see the notice? Can you describe the advertisement further than you already have?

Ans. I can't remember those particulars, but have no doubt that it was but a short time before the meeting that I saw the notice.

14th. Can you state, in any instance, the language Dr. Jackson used in the conversation with you on the 28th of October, or do you merely give your present impressions of what he said?

Ans. I can only recollect his language in two or three instances. One was that he did not think the ether of so much consequence, or words to that effect; and another that he had given away several of his important discoveries, and that he did not mean that they, and I think he referred to the dentists, should have any more without paying for it. And in this connection he said something about a five hundred dollar fee, but whether he had charged it, or was going to charge it, in connection with the ether, or some other subject, I cannot remember.

15th. Whether your recollection of this conversation is full and accurate, or how otherwise?

Ans. It is imperfect.

16th. Whether or not, you have been able to separate events, incidents and conversations, as to order of time, or whether what you have learned since the early months after the announcement of etherization, may have become confused with what you first knew?

Ans. My study of the application of ether was purely practical, with reference to my own employment, principally, and it would be impossible for me to separate my knowledge of the circumstances attending its discovery, assigning each fact its proper date.

17th. Referring for a moment to a conversation with Dr. Jackson in the church on the 28th of October, can you recall any fact in your position, or other special matter, which recalls any conversation then, to your mind? if aye, will you please state that and the conversation there?

Ans. I can remember that we went into a pew on the left-hand side, eight or ten pews from the door of the church, and that I sat near the door of the pew and Dr. Jackson inside of me, I think. I presume we must have been among the last of the procession, and, for my being so far removed from the pulpit, I felt at liberty to talk in a low tone. I can recall no other conversation than I have stated.

18th. Can you state what induced you to select Dr. Jackson as your companion in the walk as testified to by you in answer to the fifth direct interrogatory?

Ans. As a gentleman for whose attainments I entertain a great respect, and I had been in the habit of asking him questions upon those subjects with which he was familiar, ever since my acquaintance with him. Finding him engaged with Dr. J. L. B. Jackson in talking about this new agent, I naturally applied to him.

19th. What did Dr. Jackson say, if anything, as to not thinking so very much about the ether as stated in this deposition?

Ans. I have nothing to add to what I have already stated.

20th. As to the letter referred to in answer to the seventeenth direct interrogatory, can you recall what was said at the time about a letter of Dr. Morton's? Whether there was delay while he was writing the letter, or some one was writing a letter for him?

Ans. I knew nothing of a letter, until there being delay on the account which I have mentioned, young Dr. Bigelow said that there had been a letter from Morton, which removed all difficulties. I did not see that letter. Dr. Bigelow was, for a time absent from the room, and returned with that information. I knew nothing about whether Dr. Morton was writing the letter, or any one for him.

21st. Did you know of Dr. Jackson's engagements in 1846-'7, in occupation in surveys of the United States Government? how much he was away from Boston?

Ans. I can't reply as to dates. I knew generally that Dr. Jackson was frequently absent on business as a geologist. I believe he was United States Geologist. I once passed a day in his company in the western part of New York, while he was on his way to Lake Superior, but this was before the discovery of ether.

22d. Did you know that, at the time of the operation referred to in answer to the 18th direct interrogatory, Dr. Jackson was necessarily absent from Boston, engaged in some mineral survey?

Ans. I did not, and do not, never having had any knowledge of Dr. Jackson's movements.

23d. What did Dr. Morton say about the fluid used, when, as stated in answer to the fifth direct, you went to his dental rooms?

Ans. I went to Dr. Morton's to acquaint myself with the mode of administering ether, and did not expect from him any communication as to the nature of the fluid, as I knew it was patented.

24th. Whether or not, in the different times that you saw Dr. Morton, his knowledge, or want of knowledge, came under your observation? If aye, what was his knowledge of sulphuric ether, and the various kinds of ether, and of scientific and chemical matters?

Ans. They never were made matters of discussion between us, and I never had more than three or four interviews with Dr. Morton on the subject.

25th. Can you state about how long it is, that Dr. Jackson has been retired from medical and surgical practice?

Ans. I never heard of his being engaged in either of them, after his return from Europe, about twenty years ago.

26th. Have you yourself inhaled sulphuric ether in your own person? if aye, often? and how often?

Ans. I have often taken a few sniffs of it, but never inhaled it so as to produce any degree of insensibility.

27th. Whether, according to your experience, or knowledge of the inhalation of ether, the account now shown to you, and to be annexed, contains a proper account of the effect produced by it on the senses and intellectual faculties?

(This statement is annexed, marked A. J. P. P.)

Ans. The remarks of Mr. Gerdy refer to his own personal experience. As I have never breathed ether, except as I have just mentioned, I cannot tell whether they are correctly stated or not. In noticing the effect of ether upon others, I confine myself mainly to the vital functions, circulation and respiration. Practically, there seems to me to be three stages in the administration of ether: 1st, exhilaration; 2d, insensibility; 3d, stupor, which may be increased to fatality.

28th. Is not the full etherized state generally one of agreeable dreams?

Ans. No, sir. I presume it is an absence of all ideas; I mean the *full* etherized state.

29th. Is there any exhilaration where a large volume of ether is suddenly, at once, given to a patient?

Ans. Yes, sir, always, I presume.

30th. Whether or not, it frequently happens, in dental and surgical operations on etherized patients, that, after the state of total insensibility, there is a period of consciousness where there is no sense of pain?

Ans. I believe that tactile sensation is often extinguished, while consciousness remains.

31st. In a communication in the Boston Medical and Surgical Journal, of April 7th, 1847, by Dr. Keep, of Boston, is the following: "In the last two hundred cases (nearly all highly intelligent persons, capable of accurate observation,) I have not known one who was not conscious of existence, time, and of the operation which was being performed; but, though the intellect was nearly or quite undisturbed, the sensibility to pain has been uniformly greatly diminished, and generally entirely lost." Does your experience accord with this statement?

Ans. No, sir; because we carry the administration of ether very much farther than the dentists are accustomed to, and seldom commence a considerable operation till insensibility is produced, by which I mean what I have described as the second stage of etherization. The two first patients which I etherized for important operations were on the 19th and 20th of November, 1846; one for an amputation of the arm, and one for an amputation of

the leg. I did not dare to carry the etherization as far as I have since been accustomed to. The first patient, an Irish girl, said she felt as though a reaping hook was thrust through her arm without pain. The second, a tanner, preserved about the same degree of consciousness and insensibility. These cases correspond with Dr. Keep's remarks.

32d. Does it not very frequently and ordinarily happen that parturition, under the influence of ether, takes place without any sense of pain, where perfect consciousness continues.

Ans. Yes, if the effects of the anæsthetic are carried far enough. Twenty years ago, I saw a woman give birth to a child, in a state of drunkenness, without knowing it.

33d. Whether or not, in your opinion, the purity of the sulphuric ether from alcohol and acids, and the due admixture of atmospheric air, are not among the most important particulars embraced in the discovery of etherization.

Ans. Important, but not the most important.

34th. Whether or not, the ether of the shops, the ether of commerce, by reason of its impurities, is unfit for inhalation, where it is intended to produce a state of insensibility to pain.

Ans. Not entirely unfit, but comparatively inefficient.

35th. Was it anywhere taught,—anywhere laid down in the books,—before September 30th, 1846, that inhalation of pure sulphuric ether could be attended with safety to such an extent as to produce insensibility to pain.

Ans. The inhalation of ether for medical purposes has been for many years practised, principally for its soothing influence on the nerves. The late Dr. Treadwell, and many of the older physicians, were in the habit of using it to relieve difficult breathing, especially of the dying. The safety of the respiration, and its soothing influence on the lungs, were stated in 1842, by a chemical writer—Pereira. I have used it myself, for the purposes above stated, more than twenty years ago.

36th. Did you know, at or about the time of Dr. Fiske's purchase of a right to use ether of Dr. Morton, either from Dr. Fiske or Dr. Morton, what sum he paid to Dr. Morton?

Ans. I know that nine hundred dollars was the sum demanded, and, I presume, paid.

37th. Whether or not any person can be the author of a discovery in the inductive sciences without either originating any new idea or devising the means of establishing the truth of a conjecture, whether more or less probable, previously brought to view by another person?

Ans. He must either originate the knowledge of it, or show how that knowledge should be applied, or both.

38th. Whether or not, you are familiar with the facts and early history of the publication of etherization, in October, 1846, and the winter and spring following?

Ans. Yes, sir, I was at the time familiar.

39th. Whether or not, you can specify any new idea connected with the discovery of etherization first originated by Dr. Morton, or any new experiment devised by him, by which that discovery was established?

Ans. I never *saw* any facts shown by Dr. Morton under the administration of ether; but I had a belief, founded on the statements which were then current, that Dr. Morton produced the first painless operation under the influence of ether by the extraction of a tooth without pain.

40th. Whether or not the following letter is one from you? and if aye, will you state in what, if in any, particular this letter recalls any fact or incident in this deposition before inquired about to your recollection?

(A copy of this letter is annexed, marked B. J. P. P.)

Ans. I did write this letter, which fact was not in my mind when I gave the foregoing answers. On re-perusing it, it suggests nothing to add to my answers, except that my first use of it was on the 14th day of November, 1846.

Direct resumed by Mr. Dana.

1st. Please refer to your answer to the thirtieth cross-interrogatory. From the mere fact that a person was insensible to touch, and did not feel the chair he was sitting on, could you infer that he would be insensible to a capital surgical operation?

Ans. Yes; because, as the skin is one of the most sensitive structures of the body, if the patient could not feel there, he probably could not anywhere. I mean by that, if the patient does not feel an impression on the skin, he will not feel *beneath* the skin, although I should not think merely not feeling the chair he sat upon a sufficient evidence that the skin was devoid of sensibility.

2d. Are there or not, drugs, liquors, gases, or vapors, besides ether, which produces, at times, and on certain persons, unconsciousness and insensibility to as great a degree as that described in the first cross-interrogatory?

Ans. Yes, indeed. Whatever produces a sufficient degree of intoxication will produce that effect.

A. L. PEIRSON.

A.

M. Gerdy has watched and noted his own experience when etherized, with much accuracy. His description of this experiment is as follows:

I submitted myself to the inspiration of air charged with ether. The sensation which I experienced in the throat caused me at first to cough; but, being resolved to resist this, I readily triumphed

over so petty an obstacle. The prickling and the cough gradually ceased. From this moment I experienced a sensation of numbness with heat, as if alcoholic and inebriating vapor were mounting to the brain. This numbness spread itself quickly. Commencing in the feet and toes, it extended to the limbs, and at the same time to the arms, after that, to the loins, &c. It increased rapidly at each inspiration. It was accompanied in the sensible organs by a feeling of agreeable heat, by a sensation of crawling, of trembling, or of vibration, similar to that which we experience on touching a vibrating body.

Sight is not sensibly affected by this numbness, for I read some philosophical signs by a feeble light, at a moment when I was powerfully benumbed. Hearing was more altered; it became less and less distinct, as the inebriety augmented, and became more and more clear and distinct as this disappeared. In truth, it was easy to believe that the noises were growing more obscure because they were becoming more distant, and that they afterwards became clearer, because they approached. Notwithstanding this, the more profound the numbness, the greater the resonance produced by sound; but this intensity did not render it more clear. I am well assured that the senses of smell, of taste, of tact properly so called, were not paralyzed by the general numbness which I experienced, but I felt that the eyelids were heavy, a desire for sleep, and above all, a wish to abandon myself to the delights with which I was infatuated. However, either because these phenomena had acquired the greatest degree of their development, or because I wished to observe myself until the last moment, I would not yield to the seductions which enticed me, and I *did not* fall asleep. I continued to study myself, and, as I examined my sensations, I directed my attention to my intellectual functions. I remarked then, that, with the exception of the vibratory sensation of numbness, which rendered my general tactile sensation and pain obtuse; with the exception of the ringing in the ear, which prevented my distinguishing perfectly what I heard, my perceptions and thoughts were very clear, and my intelligence perfectly free. My attention was also very active, my will firm, so firm that I willed to walk, and I walked, that I might observe the state of my locomotive powers. I then discovered that my muscles were a little less sure and less precise in their movements, somewhat similar to those of a person intoxicated, or who is, at least, rendered giddy by alcoholic drink. With the exception of the pronounciation, which was embarrassed and slow, the other functions of the animal economy did not seem to me to be sensibly altered. My pulse, examined at the moment when I was most benumbed, presented no marked change from a healthy standard.

The same experiment, repeated upon six or eight persons, men and women, has given analogous results, although not absolutely

similar. Some lost, as in sleep, their consciousness, while others were gay and had obscurity of vision, which last, however, was not present in the majority of cases.

From the fact that an individual has submitted to a long and painful operation for the extraction of polypus of the nose, without experiencing the least fatigue, although he was not asleep, is it not permitted us to hope, that it will be the same in many similar cases? Does it not permit us to establish as a principle, that it is not indispensable to push the etherization until sleep has been brought on? Are we not forced to think that the etherization, when carried beyond sleep, even to general coldness or to feebleness of pulse, is dangerous? In fine, is it not permitted us to hope that it will frequently be sufficient simply to produce a general numbness, even without sleep, in order to greatly diminish the pain of operations and render them very supportable? It is on this account that I have not endeavored to produce profound sleep in the cases which I have related, but have hastened to operate.

The foregoing is the statement referred to in the 27th cross-interrogatory, as annexed and marked A.

J. P. PUTNAM.

B.

SALEM, *April 28, 1848.*

DEAR SIR: My first knowledge of the anæsthetic effect of ether was derived from a conversation with Charles T. Jackson, at a meeting of the American Academy at their room, on the day of Judge White's eulogy on Mr. Pickering, sometime in October, 1846. We walked together in the procession and I was very eager to learn the practical application of this new agent. Dr. Jackson was free in his communication, spoke of the plan of patenting with dislike—cautioned me with great care, against using impure ether, stating that perfectly pure sulphuric ether was mainly the agent employed—compared its effect with that of nitrous oxide gas, which he averred might be used for the same object, and satisfied me so well that the new discovery was worth trying, that I took the first opportunity of an important operation to try its effects. This was the extirpation of a fatty tumor, and occurred on the 14th November, 1846, in the presence of many of the faculty of the neighborhood.

See the preceding examination page 466, as to this conversation.

I send the foregoing statement in consequence of your request made to my son, and remain,

Very respectfully, your obedient servant,

A. L. PEIRSON.

MR. HENRY C. LORD.

The foregoing is the copy of the letter referred to in the question and answer—fortieth cross-interrogatory, as annexed and marked B.

J. P. PUTNAM.

COMMONWEALTH OF MASSACHUSETTS, }
Suffolk. } ss.

We hereby certify, that the foregoing is a true copy of the deposition *in perpetuam* of A. L. Peirson, taken before us upon the petition of Wm. T. G. Morton, under the statutes of this Commonwealth.

GEO. T. CURTIS,
J. P. PUTNAM,

Two Justices of the Peace and Counsellors at Law.
BOSTON, January 14, 1853.

LETTER FROM MR. POORE.

To the Hon. Mr. J. P. Walker, Chairman of the Select Committee:

SIR: The ether question having been made the topic of conversation, a few evenings since, at a dinner party given by the British minister, some remarks of mine so interested Gen. Shields, that he requested me to communicate them to you, as Chairman of the Committee on the Discovery. At that time, I would state, I had not seen either Dr. Morton, Dr. Jackson, the agents of the Wells' heirs, or the attorneys of either party, for a year, and what I now testify is elicited by a desire to combat persecution and fraud.

Interesting account of proceedings of the French Academy of Sciences.

At the commencement of the year 1847, I resided in Paris, where I had been engaged for some years as "Historical Agent of the Commonwealth of Massachusetts," and correspondent of the "Boston Atlas." The latter occupation led me to pay especial attention to every thing American, and to watch the action of the Academy of Sciences on all home questions. I have refreshed my recollections by reference to the files of the "Boston Atlas," and the "Contes Rendus," or printed journals of the Academy of Sciences.

The ether question first came up before that body on the 18th of January, 1847, when M. Elie de Beaumont read the contents of a sealed package which he had deposited on the Secretary's table on the 28th of December, 1846. This contained two letters from Dr. Jackson, one dated Boston, Nov. 13—the other Boston, Dec. 1, 1848, in which he claimed to have remarked the properties of ether five or six years previous, and then said: "I have latterly turned this discovery to use by inducing a dentist of this city to administer the vapor of ether to persons whose teeth he was going to extract. It was observed that no unpleasant consequences attended the administration of ether, and I then advised this dentist to go to the General Hospital of Massachusetts," &c.

Why did he keep silent so long. See Dr. Warren's statement p. 301.

No sooner had these letters been read, than Dr. Velpeau, an eminent surgeon, rose and expressed his surprise that M. De Beaumont should thus profess to divulge a secret. It was no secret. A letter from Dr. Warren, which he had received a month previous, disclosed the whole matter, and in the middle of December, (before Dr. Jackson's letters were deposited on the table,) Dr. Willis Fisher, of Boston, then studying in Paris, had proposed to administer ether to patients at the hospital of *La Charité*.

Meanwhile Dr. Morton's claims were unknown, but some American papers were received, in which a Dr. Marcy claimed the discovery for a Dr. Horace Wells. This gentleman was in Paris, purchasing cheap pictures from the students who copy at the Louvre, and, if I mistake not, stuffed birds for an exhibition. I met him several times, soon after his arrival, but never heard him allude to the discovery, much less claim it.

A Mr. Ducros also claimed, with much pertinacity, to have discovered the properties of ether as a pain-annihilator, in 1842; and, towards the last of January, Dr. Morton's claims were set forth in one of the newspapers—"La Presse," I think. The claims of Mr. Wells were sustained by Dr. Brewster, an American dentist of warm impulse, who claimed to have "drawn him out," and were endorsed by an English medical debating club, of which Dr. B. was a patron. The editor of Galignani's Messenger, Mr. Merle, (a personal friend of Dr. Brewster,) published Mr. Wells's letters.

Dr. Velpeau, at a sitting of the Academy, wished that "these questions of priority could be set one side—they did not appear to have any foundation. To announce that one has stupified, or put to sleep, some dogs or hens, is no information at all, because the action of ether has been known for fifteen, twenty, thirty years or more. Medical dictionaries, treatises on legal medicine—especially those of M. Orfila, and the Toxicology of this last-named author, in particular—indicate it formally. What is new, is the proposition to render patients, upon whom operations are to be performed, insensible to pain by means of the inspiration of ether. No person, to my knowledge, had made this proposition before M. Jackson, and no person, before the dentist Morton, had applied these means to suffering man."

This was the first mention of Dr. Morton's name in the Academy, and Dr. Velpeau had only seen Dr. Warren's letter. At the next session, M. Magendie, in alluding to the discovery, speaks of it as "announced by an American dentist," without any allusion to Dr. Jackson.

This impromptu recognition of Dr. Morton, as the one who first rendered the qualities of ether of practical use, brought over a volley of missives from Dr. Jackson and his attorneys. A common sewer of abuse was poured forth upon Dr. Morton, who was denounced as having committed every crime, except murder; and, when his pamphlet arrived, most Americans were prejudiced against him. I have a letter from Mr. Walsh, then United States consul, in which he declines considering Dr. Morton's claims; and a friend of Dr. Jackson's made personal application to me, to send nothing for publication in the Boston Atlas which would even recognise Dr. Morton, whom he denounced as an illiterate quack, of infamous character.

Meanwhile Mr. Wells did not appear before the Academy, the recognised scientific tribunal, and his statements were very vague. He avowed his preferences for nitrous oxide, or laughing gas, to ether, and stated that the insensibility to pain was the result of mere intoxication. This Mr. Merle alluded to, in his report of the proceedings of the Academy, of February 15, in *Galignani's Messenger*, embodying an account of an operation on the eye of an English groom, by Dr. Laugier, who stated that the patient, having taken ether, was in a state of wild intoxication, and gave unequivocal signs of the sensation of pain. "This fact," adds Mr. Merle, "is at variance with the opinion of Dr. Wells, who supposes that men, in a state of intoxication, are almost insensible to pain from the infliction of wounds." Dr. Wells made no reply; he left for the United States towards the last of February, and sailed from Liverpool, in the *Hibernia*, for Boston, on the 4th of March.

On the 8th of March, 1847, his memoir was read before the Academy. Among other statements, he asserted that, "until the month of February, 1845, I extracted teeth from twenty-five patients, without giving them any pain—invariably using nitrous oxide, as more agreeable to inhale than ether." This number varies in different statements

The secretary, on reading this statement, said that it would not be examined by the committee until substantiated by proofs. This remark was in the printed report, and was sent to Dr. Wells, but I have never heard that the *proof* was sent. Indeed, it would have been difficult to procure.

On the 22d of March, another communication from Dr. Jackson was read before the Academy, in which he ridicules the pretensions of Dr. Wells, and denounces him savagely.

Another parcel of documents from Dr. Jackson were read before the Academy on the 5th of May, and added to the obloquy cast upon Dr. Morton.

At length, on the 17th of May, documents arrived from Dr. Morton, whose claim was not first before the Academy, where Dr. Jackson had, for months, had opportunities of forestalling public opinion. From that time the statements of Drs. Morton and Jackson were regularly received, although in April, 1848, we find in the report a complaint by the secretary, that Dr. Morton's documents miscarried on their way. See Harn-den & Co's letter p. 6.

You will see, sir, by the above facts, that Dr. Wells did not go to Paris to assert any discovery—that he did not appear before the Academy of Sciences whilst he was in Paris—that his statements varied—that he was cited to produce proof of his assertions, and never produced it.

You will also see, sir, that Dr. Jackson completely forestalled Dr. Morton before the Academy, and had an opportunity, through his friend Elie de Beaumont, to win the confidence of the Aca-

demicians, whilst he and his friends did all in their power to defame and to degrade Dr. Morton. It was a great triumph for the latter, after all this, to receive the gold medal of the Academy, for he had to contend against prejudged public opinion.

I might, sir, state facts which have come to my knowledge concerning publications made in scurrilous American papers by Dr. Jackson's emissaries against Dr. Morton—a line of conduct which can but enlist in Dr. Morton's behalf the sympathy of every gentleman. But my object was to show how the question was first presented to the French Academy and public, and I will go no further.

I have sent a copy of this to Dr. Morton, and can substantiate, if necessary, every statement which it contains.

Respectfully,

BEN: PERLEY POORE.

GEORGETOWN, D. C., *January 20, 1853.*

P. S. Since the above was written, I see that the Honorable attorney of Mrs. Wells has presented Dr. Jackson's petition in the Senate, which confirms the report of a "coalition" between them to defeat Dr. Morton. This is curious, taken in connexion with with Dr. J.'s letter read before the Academy, March 22, 1847, and the following paragraphs, which I copy from an original letter, written by Dr. J. to a friend in Paris:—

"BOSTON, *March 29, 1847.*

H. Wells, of Hartford, a miserable advertising quack, formerly a partner of Morton's, has lately been to Paris, and has entered a reclamer for the discovery of inhalation of ether, on the pretence that he has used exhilarating gas for the intoxication of his patients from whom he extracted teeth. He claims my discovery as similar in principle, and the rascal pretends to have suggested to me the idea of administering ether vapor. That is an outrageous falsehood, and we can prove him a liar from his own words. See his letters published in the Hartford Courant, Journal of Commerce, Herald, &c.

Morton has a letter which Wells wrote after the patent had been applied for, stating his disbelief in the effects of ether. I have not read the letter, but Dr. Gould has, and has told me its contents.

Two years ago Wells endeavored to extract teeth from persons to whom he had given the exhilarating gas. (protoxide nitrogen) but he failed, and said it was because people laughed so that the patients would not behave properly. He was laughed at for his pretensions and left Boston. No one ever believed in his story, and I never heard that any one ever attempted to repeat the experiment. I asked Morton to try it, but he said "It would not succeed, Wells could never make it go."

Do set this matter right in Paris, so far as you can, and oblige,

Your friend,

C. T. JACKSON."

DEBATE IN SENATE.

DEBATE IN THE UNITED STATES SENATE, SATURDAY, AUGUST 28, 1852, ON THE ANÆSTHETIC PROPERTIES OF SULPHURIC ETHER.

FROM THE APPENDIX TO THE CONGRESSIONAL GLOBE.

The Senate having under consideration the bill making appropriations for the support of the Army for the year ending June 30th, 1853—

Mr. BORLAND, from the Committee on Military Affairs, submitted the following amendment, to come in after the appropriation for the medical and hospital department of the Army:

“To enable the President of the United States to procure the surrender of the patent issued to William T. G. Morton, on the 12th day of November, 1846, for his discovery of the anæsthetic properties of sulphuric ether, \$100,000.”

Mr. BORLAND. Mr. President, if the Senate will give me their attention for a few moments, I think I can put this matter on its true merits. The proposition is to appropriate \$100,000 to enable the President of the United States to purchase from a patentee his patent, or the privilege of using property to which he holds exclusive right under his patent.

The first inquiry that we make is: Is that which we propose to purchase valuable?—and, if it is, what is its value? I will not undertake to go into a detail of facts, or any argument to show the value of the discovery of the application of sulphuric ether as an anæsthetic agent. It is a subject which has been before the public so long, that I apprehend every Senator is familiar with its history, and the character of the discovery. I state what I apprehend no one will controvert—I state as a member of the medical profession, representing, in that respect, I think truly, the universal sentiment of the profession throughout the world—that as a discovery beneficial to the human race, if it be second to any which has ever been given to the world, it is second to vaccination alone. I know that the universal sentiment of the medical profession, so far as that sentiment has been expressed, is, that it is second to vaccination.

Then, sir, for the estimation in which it is held by the officers of our Government, who have availed themselves of its use in the public service, I have before me letters from the Secretary of War, from the Secretary of the Treasury, from the Secretary of the Navy, from the head of the Medical Department of the Navy, and from the head of the Medical Department of the Army—all concurring in assigning to this discovery, as used in the public service, the very highest value; and expressing the wish that the Government might, by proper means, avail itself of the right to use it in the public service. I will not read these letters; it would occupy too much time of the Senate to do so; but if any Senator should desire their reading, they can be read. All assume that it is of the very highest value, both to the Army and Navy; that it has been availed of for years past; and that incalculable benefits have resulted to the public, in saving life and allaying human suffering, greater than has ever been derived from any one source. It is a well-known fact, that, in the Army and Navy, in the performance of all important surgical operations, this agent is now very rarely, if ever dispensed with. And not only so, in the Army and Navy—not only is it used in saving life and suffering on the part of our soldiers and our sailors, but throughout the private practice of our country, the most eminent surgeons and physicians resort to it now habitually, and declare that it has become one of the most important and valuable agents which they have in the profession. If there were time, I could go on for hours in giving the particulars, giving the *modus operandi*, giving the cases by name and by number, till they would count thousands upon thousands; but there is no time at this period of the session for that.

The next point I would present is, how far it is recommended to our consideration? The Select Committee of the House of Representatives, to whom this matter was referred—although, as the Senator from Connecticut suggests, they did not formally make their report, yet it was only because no opportunity was afforded for them to do so—have prepared a report—it is here before me—a most elaborate, learned, and conclusive report as to the incalculable value of this agent, and the propriety, in the opinion of that committee, of its being availed of by the Government.

Sir, it may be asked if this be so valuable—if this individual has a patent for it, why does he not avail himself of the use of the patent, and prevent the use of sulphuric ether as an anæsthetic agent without recompense to him? I need hardly remind the Senate of the fact, that it is one of those cases in which he cannot enforce his legal rights. How can he, sir? Why, this agent is used in every State and county in this Union; and it may be and perhaps is used in almost every family where physicians actice. He has no practical remedy for the violation of his

patent. Can he go to the bedside of the sick and suffering patient, who is undergoing an operation under the influence of this agent, and lay an injunction upon its use on such an occasion? Certainly not. It is one of those cases which must strike the mind of every man that his patent, so far as the legal remedy extends, is worthless to him, although he has the legal right, for he holds the patent from the United States to its exclusive use for a certain term of years.

The next question is, Is the individual who holds the patent lawfully entitled, if any one, to be paid for the use of this agent? I say, he is. I have before me here a copy of his patent, and of the record in our Patent Office. The official acts of our officers have recognized and established, as our laws require, the identity of this individual as the lawful owner. It has been stated, I know, and may be repeated, that there is an adverse claimant; that there is another individual who claims to be the discoverer, and who has a title to at least a portion of the compensation which we propose to pay. But to meet that I have to show that if that individual ever had any right to be considered the discoverer, or any title to compensation, it has been relinquished for a consideration in favor of Dr. Morton; for here I have from the Patent Office an official announcement to that effect, which is signed by Dr. Jackson, the only individual that I know of who sets up an adverse claim to this discovery. But there is evidence before us from the very highest medical men in the country, and from the very highest medical officers of the army and navy, all recognizing Dr. Morton as the discoverer of this invaluable agent. But even if that were not so, the only other individual who sets up a claim to it has already, in the most solemn form, relinquished it forever, and assigned over to Dr. Morton all right or claim which he (Dr. Jackson) ever did have or could have. So that the point is settled that Dr. Morton stands before us as the patentee lawfully entitled to this discovery as the original discoverer.

In the next place, lest it might occur to the minds of some that purchasing the right from a patentee to use a valuable discovery is a new thing in our Government, I beg leave to call attention to the records, which show that it is no new practice, but for years and years has been repeated over and over again. I will cite a few cases. We paid for the right to make anchors of a certain form for the navy, \$1,500; for the use of circular bullet moulds, \$5,000; for the use of gas in vapor baths, \$5,000; for elevating and pointing heavy cannon, \$20,000; for the right to use patent anti-attrition metal, \$20,000. We paid to the heirs of Robert Fulton, for benefits conferred by his improvements in steam navigation, \$76,300. We paid for Mix's manger stopper, used in the cavalry service, \$3,000. We paid to Dr. Locke, for the use of his magnetic clock, \$10,000. We paid to McCulloch & Booth,

for the right to use the improved method of refining our argenterous gold bullion, \$25,000;—thus making an aggregate of \$165,000 paid in these cases. But, in addition to these, there have been numerous instances in which patent rights, or the privilege of using in the service of the government patented articles, have been purchased by the departments, some of which instances I find cited in connection with the report of the Select Committee of the House of Representatives, for which were paid \$178,032; making an aggregate of \$343,000 paid by the United States for patents and the use of patented articles.

Since I have been a member of the Senate, when meritorious individuals have come before us, who had made important discoveries, we have aided them to test their discoveries by appropriations, amounting in the whole to \$120,000.

I mention these facts to show that precedents are all in favor of such use of the public money to enable the government to avail itself of important discoveries.

I will not detain the Senate by saying more on this subject. I will briefly sum up. This discovery is a most valuable one to the human family at large. The two branches of our public service, the army and navy, have availed themselves extensively of it. It is one of the most valuable remedial agents that the world has ever known. It is in constant and growing use. This idea, which we are thus using, not only prolongs human life and protects our soldiers and our sailors, and all in our public service from immense suffering, but it is saving, in that mode of treating diseases, thousands upon thousands of dollars every year and every month. This individual cannot enforce his legal rights against anybody, owing to the very nature of the case. We are making use of his property to our great benefit, and he is receiving no compensation whatever for it. Then the papers before me, as I have read them, show that he is the individual who is entitled to compensation, if any one, for the use of this property. We find that the practice of the government—a very enlightened and useful practice, in my opinion—has been in favor of appropriations of this sort. Then, sir, I ask if this is not a proper occasion for the continuance of this practice? When was there ever before us a more meritorious case? The medical profession throughout the country sustain me in the assertion that this is the most valuable remedial agent that ever has been known. How can we, then, in justice to ourselves, in common justice to the individual who has furnished us this valuable, or rather invaluable remedy, refuse to pay him for it?

Mr. SMITH. That a discovery has been made, I admit; and that discovery is, that the effect of ether, taken into the lungs, is to produce insensibility in the human system. I agree with the honorable gentleman from Arkansas, that this substance, when taken into the lungs, will produce insensibility in the subject un-

der the operation of the knife. I agree with him, that it is a great boon to humanity; but I deny that it is a patentable discovery. And I pledge whatever reputation I may have, that if the Senate will allow me, at the next session of Congress, an opportunity to be heard on this subject, I will make out a case for the family of Dr. Horace Wells, deceased. If the subject shall then be referred to the judgment of a committee of this body, I will be prepared to make out a case worthy the most grave and serious consideration.

Mr. GWIN. Mr. President, as I formerly belonged to the medical profession, I wish to indorse everything that has been said by my friend from Arkansas in regard to this valuable agent. I confess that I came to the examination of this question with extreme reluctance. I had been out of the profession for many years, and I attempted in every way I possibly could to throw it off; but, having been requested by those whom I could not disoblige, to look into it, I must acknowledge that this is one of the most important discoveries that has ever been made in the medical profession; and this gentleman being the patentee, I could look upon it in no other light than that, as we have availed ourselves of his property—for his patent is his property—we should in equity and justice recompense him for it. I came to this conclusion with reluctance, for I was very much disposed, without examination, to go against the claim. But having examined it, I could do nothing less than to add my testimony to that of the Senator from Arkansas, both of us having been in the medical profession.

Mr. SHIELDS. I beg to state how the matter came before the Committee on Military Affairs. The subject was investigated by a Select Committee of the House of Representatives, and I was informed that the claims which the honorable Senator from Connecticut says he represents, were examined before that committee, and that committee has reported. One of my colleagues in the House, [Mr. BISSELL,] a physician by profession—and permit me to say, not only an able physician, but as veracious a gentleman as any in Congress—assured me that after a full and fair inquiry, instituted by him and the residue of the committee, of which the late lamented Mr. Rantoul, who was a highly-educated and well-informed man, was a member, and after all the claimants had been heard, and after an examination of the evidence, the committee had come to the unanimous conclusion that Dr. Morton was the discoverer of this great remedial agent. It is a subject which I did not very well understand myself. The Committee on Military Affairs, therefore, committed it to the honorable Senator from Arkansas, who is a physician by profession, and who understands the whole subject. A professional gentleman of the other House, eminent in his profession, and a highly-educated man—a man of veracity and honor—assured me

that the committee of that body had thus determined, after a full and fair inquiry.

It has been stated that this is one of the greatest discoveries of modern times. I believe it is. Of that, however, I only know this, that if this remedial agent had been known when the honorable Senator from Connecticut says he understood it was, it was unpardonable that its use was not applied to the American army in the late war with Mexico. It was criminal that it was not applied, if it was known, and it was wicked in that gentleman to withhold his information from the country on such an occasion as that; for, sir, I believe it would have saved thousands and thousands of lives.

Mr. CLEMENS. No doubt of it.

Mr. SHIELDS. Any man who witnessed the scenes which some of us were there called upon to witness, well knows that such an agent would have saved thousands of lives. Sir, thousands of our bravest and best men fell under the pains and afflictions that followed surgical operations. I have seen so much of that, that I was rejoiced to have an opportunity, when I found there was such an agent discovered, to give my support in any way; and although I was not acquainted with the subject, I was happy to have it in my power to turn it over to the honorable Senator from Arkansas, who was acquainted with it. I venture to say that there is not a professional man in America or in Europe who will not consider this the most beneficial discovery since the discovery of vaccination.

I cannot tell whether Dr. Morton is the discoverer or not; I know that those who have examined the subject thoroughly say that he is the discoverer. I have seen in addition, for he has shown it to me, the medal of one of the first medical institutions in the world—that of Paris—acknowledging, and in the name of France pronouncing him the discoverer of this agent, and that he had been able—for it was a good fortune on his part—to make a discovery which has been more beneficial to humanity than any discovery made in the medical profession since the time of vaccination.

Mr. HALE. I am not one of those who object to the proposition on account of the amount of money. If this discovery really belongs to Dr. Morton, it is no more than right that we should pay for it; because, whatever may be the value of the patent right, it is such a discovery that he cannot enforce his patent rights. It seems to me that the Government of the United States, having granted a patent by their own officers, are estopped from denying its validity; and as the Government is making use

of it in the army and navy so extensively, it seems to me but fair to compensate this gentleman.

I have been through the Massachusetts general hospital, where this remedial agent was first introduced, and where it was tested. I went through all the wards and rooms of that hospital, and I saw every form of disease and suffering. I went into the dissecting room, and I confess my blood almost ran cold as I looked at the instruments of torture, as they appeared to me, which were about the room; but I was assured by the physicians attending upon that hospital that, by the use of this remedial agent, patients were insensible to the operation of these instruments of torture—that the effect of it was to make them go quietly to sleep; and that the most difficult and dangerous operations were performed there every day, without those on whom they were performed being sensible of them. That great hospital is one of the finest charities on the face of the earth; and by the operation of this agent the most revolting surgical operations are performed every day, while the patients are, as it were, in a deep sleep.

I do not believe that there has been a greater contribution made to the cause of humanity anywhere. I do not put this discovery second to vaccination, or anything else; and if the Senate are determined to vote upon it to-day, I hope they will make this appropriation; and with my present convictions, although I should be glad to postpone the subject until the next session, in order to avoid all danger of injustice, I must vote for this appropriation.

Mr. DOUGLAS. I shall occupy but a few moments as to the claim of Dr. Wells. I hold here a paper which has been laid on our tables, and which I understand to be an abstract of testimony taken in the House of Representatives. I find here two letters, which have passed between Dr. Morton and Dr. Wells, putting to rest the claim of Dr. Wells, brought forward by the Senator from Connecticut. When Dr. Morton made his discovery, as he alleges, he wrote to his old friend and partner, Dr. Wells, to this effect:

“BOSTON, *October 19, 1846.*

“FRIEND WELLS—Dear Sir: I write to inform you that I have discovered a preparation, by inhaling which a person is thrown into a sound sleep. The time required to produce sleep is only a few moments, and the time in which persons remain asleep can be regulated at pleasure. While in this state the severest surgical or dental operations may be performed, the patient not experiencing the slightest pain. I have perfected it, and am now about sending out agents to dispose of the right to use it. I will dispose of a right to an individual to use it in his own practice alone, or for a town, county, or State. My object in writing you is to know if you would not like to visit New York and the other cities, and dispose of rights upon shares. I

have used the compound in more than one hundred and sixty cases in extracting teeth, and I have been invited to administer to patients in the Massachusetts General Hospital, and have succeeded in every case.

"The Professors Warren and Hayward have given me written certificates to this effect. I have administered it at the hospital in the presence of the students and physicians—the room for operations being as full as possible. For further particulars I will refer you to extracts from the daily journals of this city, which I forward to you.

"Respectfully yours,

"WILLIAM T. G. MORTON."

Let us see what Dr. Wells said in reply :

"HARTFORD, CONNECTICUT, *October 20, 1846.*

"Dr. MORTON—Dear Sir : Your letter dated yesterday, is just received, and I hasten to answer it, for fear you will adopt a method in disposing of your rights which will defeat your object. Before you make any arrangement whatever, I wish to see you. I think I will be in Boston the first of next week—probably Monday night. If the operation of administering the gas is not attended with too much trouble, and will produce the effect you state, it will, undoubtedly, be a fortune to you, provided it is rightly managed.

"Yours, in haste,

"H. WELLS."

Now, upon the face of these two documents, I do not understand exactly how it is broadly asserted here, that Dr. Wells is the inventor or discoverer of this remedial agent.

I confess that before I examined the matter my prejudices were against this claim, until my colleague in the other House, [Mr. BISSELL,] who is a regularly-educated physician, a man of great intelligence, who has had practice as a physician, took it up, and as chairman of that select committee, gave it a thorough investigation. This report produced entire conviction upon my mind that Dr. Morton was entitled to the credit of this discovery.

I do not mean, nor does that report mean, that he discovered sulphuric ether, or that he was the first man that ever administered sulphuric ether, but simply that he discovered the application of sulphuric ether with reference to destroying pain in surgical operations, and that he discovered it to a degree and extent in which it had not before been administered, and in which it was supposed it was not safe to administer it. He risked his own life by experiments upon his own person ; and then he administered it to other persons and ran the risk of a prosecution for malpractice in the event that it should fail. I became satisfied from the testi-

mony that he alone made the experiments, and he alone introduced it to the public; that he introduced it first into the general hospital of Massachusetts, and from there to the world; that he took the entire, sole and exclusive responsibility of the use and introduction of this agent, until his entire success had been established.

I also find from the report, that while these experiments were going on—while it was doubtful whether they would prove successful—Dr. Jackson was ridiculing and denouncing Dr. Morton as a reckless man, who was hazarding the life of his patients by administering this agent to them, and that he never set up his claim, although experiments were being made in the immediate vicinity of his own house, until after those experiments had proven successful, and the judgment of the world was about to be pronounced in favor of Dr. Morton, and of this invention that had been made by him.

I find this in the report of the committee of the House of Representatives, and I understand that both parties were represented before that committee. Taking, then, the report of that committee, before whom both parties were represented in person, and by their counsel, where testimony was adduced, and taking that report in connection with the judgment of the general hospital of Massachusetts, where the first experiments were made, and taking all the testimony together, I cannot doubt that the credit is solely due to Dr. Morton.

Mr. WALKER. Mr. President, I will ask the attention of the Senate for a very few moments. I profess to be one who has looked into this matter from its foundation to its capstone. I have read everything that has been printed, everything that is extant on the part of both parties, and I believe everything which they have in manuscript.

After Dr. Morton had administered this anæsthetic agent in his dental establishment, he immediately resorted to the Massachusetts general hospital. He got the consent of such men as Dr. Warren, Dr. Hayward, and Dr. Bigelow, that he might there administer it in a capital operation. That operation was performed on the 16th of October, 1846. Again he performed an operation on the 17th of October, and so he continued down to the 2d January, 1847, when these surgeons say was the first they ever heard of the claim of Dr. Jackson. The most distinguished medical men in America swear and certify to this. But this is not all. This matter underwent a serious and candid investigation before the medical men, the surgeons, and trustees of that institution, and they came solemnly to the conclusion, first, that Dr. Jackson had never made any discovery in regard to ether which had not been known long before; second, that Dr. Morton did, in 1846, manifest and make plain, and publish to the world, that sulphuric ether, administered in proper quantities and in a proper manner,

would produce entire insensibility to any operation. They also decided most solemnly against the claims of Dr. Wells. Not only is that so, but we have here, under the hand of Dr. Wells, an acknowledgment that the discovery was Dr. Morton's. Dr. Wells not merely acknowledged it to be Dr. Morton's discovery, but gave him advice about it, and said it would be a fortune to him if he managed it rightly.

Did the general hospital of Massachusetts stop there? No, sir. Dr. Jackson came forward before those great men, and expressed his dissatisfaction at the decision which they had made. He prayed that they might review their decision, and at his request they did review it, one year afterwards, and came solemnly again to the decision to which they had previously come. This was in Boston, where the parties lived. This decision was arrived at by the most scientific men of the continent of America, if not of the world. They reviewed their decision, had the claims again laid before them, and came again solemnly to the same conclusion.

In the meantime, however, and while Dr. Jackson was denouncing Dr. Morton as a "reckless" man, as one who had made no discovery whatever, and who would kill somebody if he did not stop his experiments, wrote a letter to M. Elie de Beaumont, of the Academy of Arts and Sciences of Paris. That letter was sent under secret seal, and it was dated November 13, 1846, just at the very time when he was denouncing Dr. Morton as a reckless wretch who would kill somebody. He sent that letter, with a request that it should not be opened until he gave further information in regard to it. The investigation went on before these daring men of the Massachusetts general hospital, and by Dr. Morton, no less daring, until the 2d of November, 1846; and in this country, Dr. Jackson was never heard of as claiming the discovery before that time. In December, 1846, he wrote another letter, requesting M. de Beaumont to open the sealed package. He opened it and read it, and, on the spur of the occasion, M. Velpeau answered it with a sneer, and said :

"The secret contained in the note which has been read is no longer a secret; the medical journals published in America and England have divulged it in the months of November and December. A letter from Dr. Warren, of Boston, communicated the information to me more than one month ago; and Dr. Willis Fisher, of the same city, proposed that I should try its effects at La Charité towards the middle of last December."

That letter of Dr. Jackson's was thus answered by a no less distinguished man than M. Velpeau, before the Academy of Arts and Sciences in Paris. But this secret letter had a fatal effect—an effect which I am sure the Academy of Arts and Sciences never ceased to regret. What did it do? It procured, upon the ex-

citement of the moment, a decision of the Academy of Arts and Sciences of France, awarding to Dr. Jackson twenty-five hundred francs, being one of the Monthyon prizes of that institution, and he received the money. But when the good Dr. Warren, and Dr. Hayward, and Dr. Bigelow, and others of the Massachusetts general hospital, who knew all about it, placed this persecuted man, Dr. Morton, before the world, and established his claim, what did the Academy of Arts and Sciences do? We know it is the nature of that institution never to take back anything which it does. It will not acknowledge fallibility; but it went to the extent to which it could go. It awarded to Dr. Morton another prize of the Monthyon foundation, of twenty-five hundred francs—as what? Just for what Fulton was, just for what Jenner, the discoverer of vaccination, was, and for what all other men are, who come before the world making discoveries. The Academy of Arts and Sciences gave him this Monthyon prize for being the man who had discovered, and made beneficial to the world, the use of sulphuric ether as an anæsthetic agent.

Notwithstanding that Dr. Morton had to fight the medical and literary magazines of the country—notwithstanding he had to fight Dr. Jackson, and almost everybody else—for nearly all the surgeons in the country, except those in the Massachusetts general hospital, frowned upon him—notwithstanding all this reduced him to poverty, yet, like a noble man, as he is, he declined to receive the two thousand five hundred francs in money. Still, so anxious was the Academy of Arts and Sciences to place in his hands evidences of their exalted recognition of his rights, that they directed a certain portion of the fund to be paid in the shape of their largest gold medal. That did not exhaust the entire fund, and the friends of Dr. Morton in France took the balance of it and used it in enclosing the medal in a beautiful gold frame, so that it altogether now presents the beautiful thing which I hold in my hand, [exhibiting it to the Senate.] Dr. Morton would not receive the money, but he received that which he could treasure in his heart, and could look upon as an evidence of the appreciation of his exertions by this noble Academy of Arts and Sciences of Paris. It is a noble appreciation of him who gave this invaluable discovery to the world. It shows whom they considered as the real discoverer.

When you come to look at the testimony on which the claim of Dr. Jackson is based; when you come to inquire really what it is, it would seem most astounding that any one in the world should come forward with such a claim. What was it? At first he claimed nothing more than that he had told Dr. Morton that ether could be taken safely into the lungs. Anybody in the world could have told him that. This substance had been known since the thirteenth century. Its formation was accurately described by Valerius Cordus, in the sixteenth century. Frobenius first

designated it ether, and published an account of it in the philosophical transactions in 1730. Its use as a medical agent, first alluded to by Valerius Cordus, and mentioned by Hoffman, Cullen, Alston, Lewis and Monroe, and other writers of the last century, has long been familiarly known. The history of its use by inhalation, commenced with the pamphlet published in 1795, by Richard Pearson; and several communications from the same Dr. Pearson are to be found in the work of Dr. Beddoes on Facitious Airs, published at Bristol, England, in 1796. The same work contains a letter from one of Dr. Thornton's patients, giving an account of his use of ether, by Dr. Thornton's advice, in a case of pectorial catarrh. He says, "it gave almost immediate relief both to the oppression *and* pain in the chest." On the second trial, he inhaled two spoonfuls, with "immediate relief, as before, and I very soon after *fell asleep*." In 1815, Nysten, in the Directory of Medical Sciences, speaks of the inhalation of ether as familiarly known for *mitigating pains* in colic. For the last fifty years, most therapeutic authors mention its use by inhalation in asthma, &c., as Duncan, Murray, Brande, Christison, Pereira, Thompson, Barbier, Wendt, Vogt, Sundelin, &c. Effects analogous to intoxication, when ether is inhaled, are stated by American authors, as Godman, (1822,) Mitchell, (1832,) Professor Samuel Jackson, (1833,) Wood & Bache, (1834,) Miller, (1846, and early in that year.)

Dr. John C. Warren, in his work on Etherization, says:

"The general properties of ether have been known for more than a century, and the effect of its inhalation, in producing exhilaration and insensibility, has been understood for many years, not only by the scientific, but by young men in colleges and schools, and in the shop of the apothecary, who have frequently employed it for these purposes."

From the days of Hippocrates down, there has been an effort to obtain an anæsthetic agent—something to lull the patient in surgical operations. But until Dr. Morton, with what physicians termed a daring spirit, came forward and demonstrated it to the world, the right agent had never been found. There is among the testimony, the certificate of the person on whom the agent was first employed. Dr. Morton first extracted teeth in this way. He then went to Dr. Warren, and got him to consent to perform a surgical operation upon a patient, rendered insensible by this agent, which he did perform on the 16th of October, 1846. Dr. Morton repeated his experiments in surgical operations at the hospital, on the 17th of October, and continually from that day down to the 2d of January, 1847, when Dr. Jackson first made known that he ever had any claim.

The trustees of the general hospital of Massachusetts, as a testimonial of the services of Dr. Morton, raised a fund of one thousand dollars ; but knowing his sensitiveness on the subject, and in order to make the compliment more acceptable to him, that there might remain something connected with it as an enduring monument of their gratitude, they inclosed the amount in a silver casket, containing an engraving manifesting their fourth decision, as you may say, in his favor.

Again, as another testimonial, I may state that the subject was brought up in the Thirtieth Congress, before a select committee of the House of Representatives, and with all the testimony before them, they decided that Dr. Morton was the discoverer. Here, again, in this Congress, after another review of all the testimony, Dr. Morton appearing before them in person, and Dr. Jackson, both in person and by counsel, a select committee of the House of Representatives has decided Dr. Morton to be the discoverer.

All that there is now to answer against his claim, is the remonstrance to which the senator from Maine has alluded ; and what is that remonstrance ? It is a remonstrance said to be signed by one hundred and forty-four physicians. The register of physicians of Massachusetts shows that there are about fifteen hundred in that State. Not one of these remonstrators was in the General Hospital of Massachusetts at the time this discovery was brought out ; but, on the contrary, a great many of them are dentists, who were personal enemies and personal rivals of Dr. Morton, and they are to this day his personal rivals. At the time he was risking his life to bring out this discovery, they were denouncing him, and endeavoring to put him down. They were getting up prosecutions against him, to drive him, if possible, from respectable society. Yet these are the men who come forward and remonstrate ! But, is it true, as the remonstrance states, that it is from "Boston and its vicinity ?" I have here the State record of Massachusetts, and I find that the names on that remonstrance are scattered all over the State. There are three hundred medical men in Boston alone, and here are one hundred and forty-four remonstrants from the whole State of Massachusetts, and these are Dr. Morton's rivals—men who had first given him notes, and then refused to pay them, and became his enemies, and tried to make out that he had made no discovery ! The remonstrance is dated in February last, and they have been ransacking the State of Massachusetts, from that time to this, to get up remonstrators against Dr. Morton, and they have succeeded in getting one hundred and forty-four out of fifteen hundred in that State.

We have two reports of the hospital of Massachusetts ; we have the prize awarded by the Academy of Arts and Sciences of

Paris ; we have the award of a casket and one thousand dollars by the trustees of the Massachusetts hospital ; we have the reports of two select committees of the House of Representatives ; we have the concurrent voice of two committees—the Committee on Military Affairs and the Committee on Naval Affairs—of this body ; and there is nothing to answer it but this simple remonstrance of which we have heard to-day. We have nothing in an authentic shape to controvert all these testimonials. Most of these remonstrants do not state that they know anything about the facts, but simply give their “belief.” Why not go to Dr. Warren, Dr. Hayward, or Dr. Bigelow ? Why not go to the various men who cut off legs and arms, and extirpated tumors, and performed the most dreadful surgical operations with the aid of this agent, when Dr. Morton was making his first experiments ? Why did not Dr. Jackson do that ? Why did he not bring the names of some surgeons to certify that he discovered this ? He could not do it.

These awards to Dr. Morton, the concurrent testimony of all these individuals, speak a voice in America and Europe, and now it is even heard in Asia. But why do we get up a controversy here about the real discoverer of this remedial agent ? I have in my possession the original patent, in which it is expressly recited that Dr. Jackson has assigned all his interest in the matter. How did he get any interest ? It was through the mistake of the lawyer who was employed in regard to obtaining a patent. Dr. Jackson went to him, and finding him employed in endeavoring to obtain a patent, observed that he had something to do with that matter. The lawyer asked him what he had to do with it. “Why, I told Dr. Morton that ether could be administered with safety.” Everybody knew that before. But did he know that pain could be destroyed under its administration ? No, sir. He does not attempt to prove it. But let anybody read the review, by both select committees of the House of Representatives, of the testimony by which he undertakes to prove it ; and if they could ever thereafter believe his witnesses, it is more than I could do. There is not one particle of testimony given, to prove that Dr. Jackson ever said or ever supposed that ether could be so administered as to annihilate pain. All that Dr. Morton wanted to know, in order to be sure, was, that he was not running the risk of murder. Dr. Jackson said it could be administered with safety. He told the patent lawyer that he had something to do with it—that he had given this information to Dr. Morton ; and then that lawyer, Mr. Eddy, through a mistake, not knowing the facts, proposed that Dr. Jackson should have some remuneration. What do you think Dr. Jackson was content with, in the first instance ? Did he claim any part of this discovery ?

Mr. Eddy thought that Dr. Morton ought to make some credit, or do something; and all Dr. Jackson then asked was five hundred dollars for medical advice; and, according to his own language, he went home and charged Dr. Morton upon his books five hundred dollars for medical advice; and Dr. Morton executed a bond to pay Dr. Jackson five hundred dollars, provided ten per cent. upon the patent would make that sum. He subsequently claimed ten per cent. upon the patent; and then claimed twenty-five per cent.; and ultimately claimed that he was the real discoverer of the whole. But, however that may be, whatever straits Dr. Morton may have been in, I say here is the patent in the name of Dr. Morton, and in it Dr. Jackson surrenders any title he could by possibility have. But, whatever Dr. Jackson may be able to show hereafter that he is entitled to, I shall be willing to grant to him.

I must make this further remark. Dr. Morton has been pursued in every step he has taken in this matter. It is in evidence before the committee of the House of Representatives, and they have reported the fact, that there were raised in England at one time by subscription ten thousand pounds, for the discoverer of the anæsthetic properties of ether, and the payment of it to Dr. Morton was prevented by the agitation raised by Dr. Jackson. Dr. Morton has been pursued by people hunting on his track. They are still following him. Here they are, now, pursuing him through the mouth of the Senator from Connecticut. But I do not blame him for making any representations he may see proper in regard to Dr. Wells; but I say that the original claim of Dr. Wells is altogether refuted by his own evidence, and by his own advice to Dr. Morton.

Then, taking all these public monuments, as you may call them, as evidence of the right of Dr. Morton, running from 1846 to 1852, how can it be possibly said that we are taking a snap judgment on anybody? It cannot be truly said. This subject has been long considered, and the judgment of the world has been in favor of Dr. Morton's rights. But here is the patent, and here he is the assignee of any rights that Dr. Jackson may have had.

A proposition now comes up from the Committee on Military Affairs to procure a surrender of that patent; and for what reason is that opposed? Why, that by paying this, we may do something wrong to some other individual. Sir, the patent has been granted at the Patent Office. That is the tribunal established by the Constitution and the laws to decide to whom a patent is due. That institution did decide the patent to be due to Dr. Morton, and it was issued to him, and any rights which Dr. Jackson had in it are recited in the patent as being assigned to Dr. Morton. Then he (Dr. Jackson) can have no claims.

But it is not pretended that Dr. Jackson or Dr. Wells have got a patent. It is known that they did not get any. Dr. Morton has the patent, and this appropriation is proposed for the purpose of obtaining the surrender of that patent.

Mr. MALLORY. I am pleased to have this opportunity to manifest, by a vote upon this proposition, my appreciation of the importance of the subject to which it refers; and, sir, if no voice in its behalf had been hitherto raised, if no advocate had ever before appeared to press the claims of him whose successful devotion, whose self-sacrificing labors have secured for him throughout the earth this heaven-born gift—I would have considered it one of the high privileges of the place I occupy to stand forth in that attitude. But, sir, such fortunately is not its position; for the earnest appeals of men, women, and children, the united and consistent testimony of the learned and the unlettered throughout this broad land, have raised up for it here unwavering friends.

This amendment, Mr. President, proposes to pay to the discover of the anæsthetic properties of sulphuric ether, inhaled, and of their extraordinary advantages to medicine and surgery, one hundred thousand dollars, upon the condition that he shall relinquish it to the free enjoyment of mankind, and abandon all the rights of a discoverer and patentee. If the question be asked, What is the character of the service rendered? what is the utility of the discovery? the response comes from thousands of our fellow-citizens, in every walk of life, whom gratitude has made eloquent. It comes from the lowly couch of the poor-house patient, and from the aristocratic mansion of the millionaire—from feeble woman in the agonies entailed upon her first disobedience, and from the stern, strong man, writhing in pain. It comes from your battle-fields, from your military, naval, and civil hospitals, from your gallant soldiers and sailors tortured by wounds and amputations. It comes to you from the practitioner in every department of medicine, and with our consent the surgeons of the Old and New World hail it as the great discovery of the age. Its claims have been examined by select committees of Congress, aided by able counsel, with an industry and accuracy equally honorable to them and to the subject. The trustees of the Massachusetts General Hospital presented the discoverer with one thousand dollars, and an appropriate letter. The chiefs of our own Departments, our Surgeon General, and the head of our Naval Bureau of Medicine and Surgery, give it their unqualified approval, and the Academy of Sciences of Paris, after a thorough investigation of its character, conferred upon its discoverer the "Monthyon gold medal" as an extraordinary mark of its approbation.

Such are a few of the thousand evidences of the various characters from Europe and America in its favor. And well, sir, does it merit this praise. Hitherto the surgeon's skill, though advancing with gigantic strides, has been circumscribed and controlled by the power of endurance of his patient; and many operations which comparative anatomy justifies and demands for the salvation of life, have been rendered impracticable by their tortures upon an enfeebled or agonized frame, or by their violent shock to the whole nervous system; and thousands have annually perished whom this discovery might have saved. Men of undoubted courage, wounded at last, after facing death in many forms, shrunk with undefined terror from the prospect which the cold-blooded torture of the surgeon's knife holds before their eyes; and timid woman, sinking beneath disease, not unfrequently prefers the pains of death to the untold horrors of the operator's table. But all this is now passed. The knife has lost its terrors, the tourniquet and saw are regarded without a shudder, and the appearance of the surgeon by the pallet of the untimely sufferer is hailed with joy, for he not only banishes pain, but substitutes for an anguished frame the happy dreams of a joyous spirit. In the language of the venerable and eminent Dr. Warren—

“A new era has opened to the operating surgeon! His visitations on the most delicate parts are performed, not only without the agonizing screams he has been accustomed to hear, but sometimes with a state of perfect insensibility, and occasionally even with the expression of pleasure on the part of the patient. Who could have imagined that drawing the knife over the delicate skin of the face might produce a sensation of unmixed delight?—that the turning and twisting of instruments in the most sensitive parts might be accompanied by a beautiful dream?—that the contorting of ankylosed joints should coexist with a celestial vision? If Ambrose Paré, and Louis, and Dessault, and Cheselden, and Hunter, and Cooper, could see what our eyes daily witness, how would they long to come among us, and perform their exploits once more? And with what fresh vigour does the living surgeon, who is ready to resign the scalpel, grasp it, and wish again to go through his career under new auspices!”

If I felt justified, Mr. President, in view of the pressing legislation yet before us, I would embrace this occasion to give the conclusive testimony of the principal practitioners of Europe and America in its behalf; but I do not feel authorized to consume a moment beyond a mere reference to them. In the eloquent testimony of Holmes—

"The knife is searching for disease—the pulleys are dragging back dislocated limbs—nature herself is working out the primal curse which doomed the tenderest of her creatures to the sharpest of her trials; but the fierce extremity of suffering has been steeped in the waters of forgetfulness, and the deepest furrow in the knotted brow of agony has been smoothed forever."

And now, Mr. President, if it be difficult to establish a standard by which merit generally is to be rewarded, how utterly impossible must it be to determine its proper bounds in a case like the present, in which an humble individual is the donor, and the whole human family the recipient. His most enduring and valuable reward will be in the undying gratitude of a posterity whose lot is suffering and pain, and a supreme happiness flowing from gratitude to God for being made the medium of such a boon to his creatures. But, sir, let us fulfil *our* duty. *We* cannot PAY Dr. Morton—his services are beyond price; but we can place his future life beyond the reach of poverty, and in this manner do justice to ourselves; for, Mr. President, to the living searchers after truth, as well as to those children of genius who are yet to struggle in her paths, and in the eyes of all honorable men, the course of the American Senate upon this question will be a beacon of warning or of hope.

I believe not the worn-out apophthegm, that republics are ungrateful. Ingratitude is the crime of men, not of political organizations; and the sons of Adam possess in common the same virtues and vices. But yet, sir, there is much upon history's page to justify the proposition, even within our own short political existence. The graves of our revolutionary sages are unknown to their free and happy descendants. No Old Mortality renews their fleeting letters; and the monument of its father and hero struggles lingeringly upwards, stone by stone, in spite of their seeming indifference.

Fulton's merits were disregarded; and he was suffered to die owing more dollars than would have covered him in his grave. In pleasing contrast to this, sir, is the grant of the British Parliament of \$150,000 to Dr. Jenner for his discovery of vaccination, and its liberal reward of discoveries in various walks of science. I am persuaded that the objection, based upon a constitutional prohibition, made by the honorable Senator from New York, is not seriously urged; and certainly upon one of the alternatives suggested by him we can reward this applicant. I never saw him till within a day or two, and I know personally nothing of him, but entertain no doubt of the justice of his claim, and hope the amendment will pass.

Mr. BADGER. I know not, Mr. President, what private griefs the honorable senator from Connecticut, [Mr. SMITH] has; but certainly something or other seems to have stimulated him into a very undue excitement on this occasion, one not usual upon questions of this kind, and one which certainly that senator is not in the habit of exhibiting in the Senate. The honorable senator demands an opportunity of making out a case—for whom? For clients of his. Does he demand that we shall postpone this inquiry, in order that we may have another investigation at the next session? If so, that is one strong reason with me why we should promptly decide it now. I do not want to occupy two months out of three of the ensuing session with the investigation of these contradictory claims, which the honorable senator desires to set up on this subject.

I shall vote for the amendment which has been recommended by two committees of this body. Of this man, Dr. Morton, I know little. I have seen him in this city, and that is all. About him, as an individual, I care nothing. But I am called upon here to determine whether I will vote for an appropriation to procure the surrender of a patent which he has obtained from the Government of the United States, for the use of what is, beyond all doubt, one of the most valuable bounties that has ever been bestowed upon mankind.

The honorable Senator talks about chloroform; but does he not know, that however valuable chloroform is, as an agent in these cases, it is at the same time, a dangerous one; and many who have gone to sleep with it to be relieved from the pain of an operation to be performed, have waked no more? whereas, I have it from surgeons of the highest respectability that, with regard to this particular agent, though it has been used in thousands of cases, there is not known an instance in which fatal or dangerous consequences have resulted from its use. That is what I understand. Of course, I cannot speak upon the subject from any knowledge of my own.

Dr. Morton has a patent for this invention. The honorable Senator from Connecticut says the subject-matter of the patent is not patentable. Upon that question I take issue with him; but this is not the place to decide it. The patent has been granted. The subject-matter patented is in daily use, and has been in use for years in the army and navy of the United States, to the great advantage of the surgical departments of those corps, and to the benefit and relief of poor sufferers who were compelled to be subject to surgical operations. It is used by the public generally. And now I ask, if it is becoming the Congress of the United States to say to this man, "We have granted you a patent; we use the discovery for which we have granted you that patent; but there are other people in the world who claim that they

originally hit upon this idea, and therefore we will not pay you for the use of your invention?" This man has reduced it to practice; he has made it accessible to common and ordinary use.

But it is said that Dr. Morton has not prosecuted those who have violated his patent. To me, this is no objection. It is no objection in my mind, that he has not discovered himself to be a litigious person, disposed to bring before the law every surgeon of the army and navy, and in private practice, who has used it for the relief of suffering humanity. Besides all that, I have practiced law too long not to know, that whoever goes to law, whatever else he may be, is no wise man; and that he who goes there, goes not for his own benefit, but for the benefit of clerks, sheriffs, and lawyers. I think, in that respect, therefore, he has acted as a wise and humane man.

I do not undertake to decide on this question from information which I have derived from Dr. Morton. I never had any conversation with him upon the subject of the invention; I refused to have any conversation with him. I have refused to read anything which he has written upon the subject, but I rely upon information which I have received from impartial sources, and the unanimous report of the Committee on Military Affairs. Upon that I am willing to vote. We are taking no snap judgment upon any person—the clients of the senator from Connecticut, or otherwise. We merely propose to purchase for the use of the public service, what we think is a valuable, or rather, I should say, an invaluable remedial agent.

REPORT
TO THE
HOUSE OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA,
VINDICATING THE RIGHTS
OF
CHARLES T. JACKSON
TO THE
DISCOVERY OF THE ANÆSTHETIC EFFECTS
OF
ETHER VAPOR,
AND
DISPROVING THE CLAIMS OF W. T. G. MORTON,
TO THAT DISCOVERY.

Presented to the House of Representatives of the United States, 28th of August, 1852, by

HON. EDWARD STANLY, OF NORTH CAROLINA, AND
HON. ALEXANDER EVANS, OF MARYLAND,

Members of the Select Committee on the Ether Discovery.

PRINTED BY AUTHORITY OF THE MINORITY OF THE COMMITTEE.

REPUBLISHED WITH NOTES.

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Members of the United Congress of the United States.

Printed by G. W. Johnson, at the National Printing Office, Washington, D. C.

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REPORT.

The undersigned, a member of the select committee to whom the memorial of W. T. G. Morton, concerning the discovery of the anæsthetic effects of sulphuric ether, was referred, dissenting from the conclusions, and still more from the tone and argument of the report of the majority, submits his views as to the facts and questions which were presented to the committee for investigation.

Mr. W. T. G. Morton presented a memorial to Congress, praying, in substance, for an appropriation to him of money from the treasury of the United States, in consideration of the use by the army and navy of his alleged discovery of the anæsthetic effects of sulphuric ether.

Dr. Charles T. Jackson, having been informed by the committee of Morton's memorial and claim, presented his remonstrance against any appropriation of money to Mr. Morton for this purpose, upon the ground that the discovery of the anæsthetic effects of sulphuric ether was not made by Mr. Morton, but by himself. The main question at issue before the select committee to whom the memorial and remonstrance were referred, was, as to the relative claims of Mr. Morton and Dr. Jackson to this discovery; for no doubt was entertained by any of the committee that a discovery had been made of an inestimable benefit to the country and world.* The undersigned dissents from the conclusion of the majority upon this question.† He regards the report as having nothing judicial in its character, and as a partisan argument in defence of Mr. Morton's pretensions. It rejects all the testimony of the many unimpeachable witnesses as to the main facts in support of Dr. Jackson's claim. It admits the statements of witnesses, in behalf of Mr. Morton, who have been impeached and contradicted.‡ It assumes that the statements of Dr. Jackson, whose character is above all reproach, are entitled to no credit, and conveys the impression that he is a mere pretender.§ It gives implicit confidence to the Dr. Morton: and at the close of the argument for Dr. Jackson, called on his counsel to explain the fact testified to by Mr. C. Eddy, that Jackson expressly declared (see Eddy's testimony, p. 286,) on the 23d of October, 1846, that he "DID NOT KNOW" *at the time of his pretended communication to Morton*, "THAT AFTER A PERSON HAD INHALED ETHER AND WAS ASLEEP, HIS FLESH COULD BE CUT WITH A KNIFE WITHOUT HIS EXPERIENCING ANY PAIN, &c." And Mr. Stanley left the committee room without receiving any explanation on this cardinal point.

† This is an unwarranted attack on the whole committee EXCEPT HIMSELF.

‡ The case of Dr. Morton is fully made out by witnesses against whose credibility not a word has been breathed, viz: Hayden, Dana, Metcalf, Wightman, C. Eddy, &c., &c.

§ Dr. Jackson is flatly contradicted in the *essential* points of the controversy not only by other witnesses, *but by himself*, in his several statements. Besides, which it is evident that he has (to say the least) a monomania to claim the inventions of others. (See Amos Kendall's pamphlet exposing his claim of Morse's Telegraph.)

See Majority Report, p. 35: that Dr. Morton himself voluntarily invoked the consideration of Dr. Jackson's pretensions, which otherwise would have been presented before the committee. * Mr. Stanley was absent during the argument by counsel for

* Mr. Stanley himself was the first to move the rejection of the testimony as to Dr. Morton's character. Dr. Morton waived all objection, which he considers Dr. Jackson entitled to the sole honor of the discovery of the anæsthetic effects of sulphuric ether. It gives judicial weight to the partisan papers of Mr. Morton's advocates, and rejects the concurrent decisions of the highest scientific authority.†

The undersigned will hereafter refer, in detail, to the particular portions of the report which he considers objectionable, and will proceed, first, to an affirmative statement of the grounds upon which he considers Dr. Jackson entitled to the sole honor of the discovery of the anæsthetic effects of sulphuric ether.

In determining a question of discovery, the character of the claimant is an essential point of consideration. The scientific and intellectual character of the claimant may furnish the strongest probability that scientific experiments or inductions were made by him, while, on the other hand, an absence of those attainments and intellectual qualities, which seem *à priori* to be demanded for a scientific discovery, may present so high an improbability as to outweigh the most positive testimony in favor of the pretensions of the claimant. Great discoveries in science have never been accidental.‡ The occasions which have hastened or aided the discovery may have been matters of accident; but if the discovery were not premeditated or sought for, the knowledge of the relations of the new fact, which accident has presented, with known truth, must have existed. Although the seed may be wafted by the wind, it will germinate and bear fruit only in a cultivated and genial soil. Knowing this to be truth as to the past history of scientific discovery, we naturally inquire, at the outset, whether the circumstances of Dr. Jackson's life and pursuits have been such as to render it probable that he might have made the discovery of anæsthesia. Some of these may be briefly referred to.

† This is mere bold assertion.

‡ *Per contra*: See the examinations under oath of the most prominent scientific men of Boston. Without wasting time on this florid statement, (which has no foundation in the evidence before the committee, and which the author of the report must have derived from other sources,) it is enough to say, that if it were all true, it only shows (when collated with the fact,) that Dr. Morton's natural genius ran ahead of Dr. Jackson's scientific advantages.

Dr. Charles T. Jackson received the degree of Doctor of Medicine at Harvard University in 1829. At the time of his graduation he received from the Boylston Medical Society the premium for the best dissertation upon a medico-chemical subject. Embarking for France, after receiving his medical degree, he spent three years in that country, engaged in the study of medicine, in attending lectures at the Royal School of Mines, at the Academy of Sorbonne, and the College of France. During the summer of 1832, at the request of the *internes*, he gave a course of private instructions and lectures in surgical anatomy. On his return to Boston he established himself in his profession as physician and surgeon, in which he became eminently successful, especially in (when collated with the fact,) that Dr. Morton's natural genius ran ahead of Dr. Jackson's scientific advantages.

surgery. His taste for researches in analytical chemistry and geology gradually withdrew him from his profession. For many years past he has been almost exclusively employed as an analytical chemist and practical geologist. He has made geological surveys of Maine, Rhode Island and New Hampshire, under the authority of their respective State governments. He made the first mining surveys on Lake Superior, and received the appointment of United States Geologist for the survey of the mineral lands of that district. The labors of Dr. Jackson in chemistry and geology have given him a high place among the most eminent of our scientific men.

It was the rare union of extraordinary medical and chemical attainments which peculiarly fitted him to make a discovery which could not have originated with either the physician or chemist alone. The possession of these attainments, and, more than all, a rare intuitive power of comprehending scientific truths, have led Dr. Jackson's friends to consider him the man of all others to have made this discovery. This is a "judicial proceeding."

Before proceeding to refer to the evidence by which the claims of Dr. Jackson are supported, the undersigned will briefly state the facts which appear to him to be proved, and define the grounds upon which he considers the claims to discovery rest.

1. Dr. Jackson inferred with great confidence, from experiments performed upon himself and others, that, contrary to the opinion then universally entertained by all medical authorities on the subject, it is perfectly *safe* to inhale sulphuric ether to such an extent as to produce unconsciousness. See the testimony of C. Eddy, "HE WILL KILL SOMEBODY YET." See also new evidence of Chandler, Warren, and others.

2. He discovered the two *conditions* on which the safety of etherization depends; to wit, a due admixture of atmospheric air, and the purity of ether from alcohol. Ignorance of these conditions had caused the failure of most of the early experiments with ether, by the principal surgeons of Paris, previous to the publication of Dr. Jackson's communication to the French Academy, dated November 13, 1846.* * This is merely an after-thought. See Dr. J. Mason Warren, and H. J. Bigelow.

3. Dr. Jackson discovered a *new law of the human constitution*, to wit, that the nerves of sensation may at [5] pleasure be safely and completely paralyzed for a short time, without the loss of consciousness, which state always precedes and follows the state of total unconsciousness produced by sulphuric ether, and which, by carefully regulating the administration of the ether, may be produced and continued for a considerable time without causing a loss of consciousness.† † Yet the world was in ignorance of this great "new law of the human constitution for five years after he pretends to have discovered it (1841-2.)"

4. He discovered and verified, by an experiment made upon himself,—an experiment which, for boldness and deliberate courage, is almost without parallel in the history of science,—the *physiological fact* that pure sulphuric ether duly mixed with atmospheric air, has the power safely and completely to destroy exceedingly severe pain; and inferred, with great confidence, that

* Not only it has the power safely and surely to destroy *any degree* of is there no proof of pain.*

this, but 5. He caused experiments to be made under his directions, and on the negative pregnant against it. his responsibility,† which verified his conclusion as to the power of sulphuric ether to prevent the pain of the severest surgical operations.

The facts above stated are confirmed by the most direct and (See Mr. Whitney's testimony) unimpeachable testimony.

The statements of *a man of science*, in relation to experiments made by himself, which, by the nature of the case, must be solely within his own knowledge, by the usage of the scientific world

are received with the highest confidence. It is the occupation of his life to investigate and announce truth. His precise *habits* of observation prevent error. Great risks of life and property are

hazarded upon his word. The habit of accuracy is cultivated by the sense of *responsibility under which* he speaks.‡

The first piece of evidence to be referred to, in support of the above positions, is, therefore, *Dr. Jackson's own statement* as to his experiments and inductions. This statement, which he addressed to the committee, and is the same addressed by him to

Baron Humboldt, *will be found* at length among the papers appended to this report.

Dr. Jackson, after referring to experiments made by him in the inhalation of various gases, and particularly protoxide of nitrogen, with a view to determine its effects in mitigating pain in surgical operations, states as follows:

A fact in point by Pereira in 1839—whereas, Dr. J.'s first claim to have used it is in 1841-2—and as to this see Whitney. “Having been appointed geologist and chemist to the State of Maine in 1836, I opened a large chemical laboratory, the next year, for instructing my pupils, and for making the chemical analysis for the State, and had frequent occasion to experiment with chlorine gas, and had accidents myself, as well as to my pupils, by the breakage of vessels filled with this gas. Vapor of alcohol was at that time the remedy we used for relief, and not finding it to answer the purpose satisfactorily, I soon after tried the inhalation of sulphuric ether vapor, which, from 1837 to 1841, was the means in habitual use in my laboratory for relieving persons from the effect of the action of chlorine in the lungs. * * * *

“In the winter of 1841-42, I made the discovery of anæsthesia by ether vapor. * * * *

See Whitney, who was in his laboratory at the time, and never heard of it till after the ether discovery. “The circumstances were as follows:—In the winter of 1841-42, I was employed to give a few lectures before the Mechanics' Charitable Association in Boston, and in my last lecture, which I think was in the month of February, I had occasion to show a number of experiments in illustration of the theory of volcanic eruptions, and for my experiments I prepared a large quantity of chlorine gas, collecting it in gallon glass jars over boiling water. Just as one of these large jars was filled with chlorine, it overturned and broke, and, in my endeavors to save the vessel,

[6] I accidentally got my lungs full of chlorine gas, which nearly suffocated me, so that my life was in imminent

danger. I immediately had ether and ammonia brought to me, and alternately inhaled them with great relief.

"The next morning my throat was severely inflamed and very painful, and I perceived a distinct flavor of chlorine in my breath, and my lungs were still much oppressed. I determined, therefore, to make a thorough trial of the ether vapor, and for that purpose went into my laboratory which adjoins my house in Somerset street, and made the experiment, from which the discovery of anæsthesia was deduced. *I had a large supply of perfectly pure-washed sulphuric ether, which was prepared in the laboratory of my friend, Mr. John H. Blake, of Boston. I took a bottle of that ether and a folded towel, and seated myself in a rocking-chair, placing my feet in another chair, so as to secure a fixed position as I reclined backward in the one in which I was seated. Soaking the towel in the ether, I placed it over my nose and mouth, so as to inhale the ether mixed with the air, and began to inhale the vapor deeply into my lungs. At first the ether made me cough, but soon that irritability ceased, and I noticed a sense of coolness, followed by warmth, fulness of the head and chest, with giddiness and exhilaration. Numbness of the feet and legs followed, and a swimming or floating sensation as if afloat in the air. This was accompanied with entire loss of feeling, even of contact with the chair in which I was seated. I noticed that all pain had ceased in my throat, and the sensations which I had were of the most agreeable kind. Much pleased and excited, I continued the inhalation of the ether vapor, and soon fell into a dreamy state, and then became unconscious of all surrounding things. I know not how long I remained in that state, but suppose it could not be less than a quarter of an hour, judging from the degree of dryness of the cloth, which, during this state of unconsciousness, had fallen from my mouth and nose and lay upon my breast. As I became conscious, I observed still there was no feeling of pain in my throat, and my limbs were still deeply benumbed, as if the nerves of sensation were fully paralyzed. A strange thrilling now began to be felt along the spine, but it was not in any way disagreeable; little by little sensation began to manifest itself, first in the throat and body, and gradually extended to the extremities, but it was some time before full sensation returned, and my throat became really painful.*

No proof whatever: yet the fact naturally involves some knowledge by others.

"Reflecting upon these phenomena, the idea flashed into my mind that I had made the discovery I had been for so long a time in quest of,—a means of rendering the nerves of sensation temporarily insensible to pain, so as to admit the performance of a surgical operation on an individual without his suffering pain therefrom."

Pity that this idea did not flash beyond the narrow horizon of the thinker's mind. Is it

Dr. Jackson explains the process of reasoning upon which he possible that he slept on it for five years, while the world was suffering? If it be true, what does he deserve? As to the inductions see the testimony of Townsend, J. M. Warren, Bigelow.

formed this induction, as follows:—"In the rapid inductions of the mind it is not always easy to trace the exact method of thought, by which we suddenly arrive at great truths; but so far as I can trace the reasoning that rapidly flowed through my mind, it was upon principles well understood by all educated physicians and physiologists.

"I knew that the nerves of sensation were distinct from those of motion and of organic life, and that one system might be paralyzed without necessarily and immediately affecting the others. I have seen often enough, in my medical practice, the nerves of sensation paralysed without those of motion being affected, and those of motion paralyzed without the ganglionic nerves or those of organic life being affected.

"I knew also that the nerves of sensation are stationed [7] as sentinels near the exterior of our bodies, to warn us of danger from external causes of injury; and that there is no feeling in the internal portion of our bodies. I knew also that when the knife is applied in surgical operations, there is little sense of pain in any parts beneath the skin. This my own surgical experience, as well as that of others, had long ago demonstrated, and the philosophy of these physiological facts was made known to the medical world in England and this country, by the researches of Sir Charles Bell, of England, and was fully proved by all eminent anatomists and physiologists on the continent of Europe.

"Now I had observed—

Consider all this, and decide whether it can possibly be true, and yet the truth kept from mankind? Intrinsically, is it credible? If credible, what claim does it give to the bounty of Congress, or the gratitude of the world?

"1st. That the nerves of sensation in my own body were rendered *insensible to pain* for some time before unconsciousness took place.

"2d. That all pain had ceased in a suffering part of my body during the stages of etherization, preceding and following the unconscious state.

"3d. That this state of insensibility of the nerves of sensation continued for a sufficient length of time to admit of most surgical operations, and I had reason to believe that, during the unconscious period, the degree of insensibility was still greater, so that it would be impossible that any pain could be felt in a surgical operation.

"4th. That the nerves of motion and of the involuntary functions of respiration and of circulation were in no wise affected; the functions of life going on as usual, while the nerves of sensation were rendered devoid of feeling, and the body could suffer no pain. By long experience in the trial of ether vapor in spasmodic asthma, and from numerous carefully-conducted physiological experiments, I had learned that the vapor of ether could be safely inhaled into the lungs to an extent before believed to be highly dangerous."

That the facts occurred and the deductions were made, as narrated in Dr. Jackson's statement above given, is proved by the testimony of eight witnesses, to whom he communicated the above facts, and announced his discovery of the anæsthetic effects of sul-

phuric ether, prior to September, 1846. This testimony is of the same character as is commonly introduced to establish priority of invention in suits at law for infringement of patents. It is believed that it would establish the priority of invention or discovery in any court of law. The witnesses are all men of unimpeachable character; most of them scientific or medical men, upon whom Dr. Jackson's statement must have made a strong impression, and who would be most likely to be distinct and definite in their recollections.

The communications by Dr. Jackson, relative to his experiments and discovery, prior to September, 1846, were made as follows:

In the winter of 1841-42, to George Darracott.

In the spring of 1842, to John H. Blake.

In the summer of 1842, to Wm. F. Channing.

In September, 1842, to S. A. Bemis.

In September, 1842, to George T. Dexter.

In 1842 or 1843, to Henry D. Fowle.

In November, 1845, to D. Jay Browne.

In February, 1846, to Joseph Peabody.

By the testimony of Mr. Darracott, now published for the first time, we have the facts confirmed in relation to the accident from the inhalation of chlorine, and the inhalation of ether by Dr. Jackson to relieve his sufferings. This affidavit is as follows:

"I, George Darracott, of Boston, in the county of Suffolk, agent of the Boston Gas Light Company, do under [8] oath depose and say, that some years ago I called, in the morning, at the laboratory of Dr. Charles T. Jackson in Boston; that in the Doctor's manner I perceived an unusual earnestness or excitement; that in answer to my inquiry he said that he came near killing himself from accidentally breathing some noxious gas—chlorine, I think it was—which he was preparing to use in a lecture; that to rid himself of the feeling of suffocation he experienced, he inhaled the vapor of sulphuric ether; that, as the pain caused by breathing this noxious gas recurred, he again inhaled the sulphuric ether, until he was completely relieved. The time of this interview was some years before any publication about etherization in the newspapers in Boston.

(Signed,)

GEORGE DARRACOTT."

Mr. John H. Blake, a practical and scientific chemist of Boston, in his letter of April 27, 1848, in replying to certain inquiries from Dr. Jackson, says:

"I distinctly remember the substance of the conversation which passed between us, in the spring of eighteen hundred and forty-two, concerning sulphuric ether. The conversation took place at your office, where I was passing the evening. Observing that you was suffering from severe pain in the head, I was about to take leave, when you requested me not to do so, remarking that

If this be true, Dr. Jackson and his 8 witnesses deserve to be hung in a row. But he never could have communicated these things to any person having intelligence enough to be a witness ten years afterwards, without such person comprehending and acting on the immense value of the truth communicated.

This is Pereira's prescription, published in 1839, and is wholly distinct from the principle of etherization.

This, if in ten or fifteen minutes you would probably be free from pain. I true, is a replied: 'Were I subject to attacks so severe, and of such short mere sug- duration, I should inhale nitrous oxide.' My remark was not gestion that stupe- intended to be understood seriously. You answered: 'Some of faction would en- your sulphuric ether would be much better; and added, 'Are you sue, as aware that, when inhaled, it produces complete insensibility?'— from lauda- or words to this effect.
num, &c., "I was aware of this fact; but, at the time, my impression was, and like that either nitrous oxide or the vapor of ether, inhaled frequently, the above, would be attended with evil consequences, if not fatal.
does not touch the "The ether to which you referred was some which I had pre- principle. pared for use in my private laboratory. It was pure sulphuric ether, and very different from the sulphuric ether of the shops—such as was then only to be found in the market."

Dr. William F. Channing, of Boston, a Fellow of the American Academy of Arts and Sciences, author of several works on Electricity and Magnetism, and lately distinguished as the inventor of the celebrated Telegraphic Fire Alarms, in his affidavit of May 12, 1848, he says:

This is like the foregoing. "In the month of March, in the year eighteen hundred and forty-six, I accidentally inhaled chlorine in the laboratory of Dr. Charles T. Jackson, of Boston. The effect was to produce spasms of the chest and distress of respiration, of such a character as to make me apprehend an immediately fatal result. I at once inhaled the vapor of ammonia and alcohol from the mouth of the vessels containing the same, for the purpose of neutralizing the chlorine, but found very slight relief. I also swallowed some brandy, which gave momentary, but no permanent relief. Dr. Jackson, who had then returned to his office, advised me to try the inhalation of sulphuric (hydric) ether, which he stated that he had himself used with success in an accident of the same kind, and he [9] directed its application by means of a handkerchief. The inhalation of the ether produced an immediate suspension of the spasms, with entire relief from the distress. They recurred again, after a time, with less violence, but were subsequently entirely removed by occasional inhalations of ether; so that, in about one hour after the accident, I was enabled to walk from the laboratory without difficulty.

"Several days after, inflammation of the lungs resulted from the irritation of the chlorine, connected with exposure to cold. In consequence of the great relief produced in my own case by the inhalation of ether, I recommended it, shortly after my recovery, to be used as a remedy in ordinary cases of spasms of the chest.

"I have heard Dr. Jackson speak on several occasions of the inhalation of sulphuric (hydric) ether, for producing insensibility to pain during operations of a surgical nature. These conversations with Dr. Jackson took place, according to my recollection,

certainly more than a year and a half ago; and my own impression is very strong that the earliest communication on this subject took place during the summer or autumn of 1842, while I was acting as assistant with Dr. Jackson on the geological survey of the State of New Hampshire."

Dr. S. A. Bemis, one of the oldest and most respectable dentists in Boston, deposes as follows:

"On or about the twenty-ninth day of September, in the year eighteen hundred and forty-two, I was residing as a boarder at the Mount Crawford House, at Hart's Location, in the county of Coos, and State of New Hampshire. On or about the said twenty-ninth day of September, Dr. Charles T. Jackson, of Boston, being at that time engaged in a geological survey of New Hampshire, stopped at the said Mount Crawford House.

"Dr. Jackson had, for some years prior to the above date, been an acquaintance of mine. During some conversation that occurred between Dr. Jackson and myself, at the time and place above mentioned, and in presence of several other gentlemen, among them Dr. William F. Channing, of Boston, then an assistant of Dr. Jackson, various remarks were made respecting my own profession; and the subject of pain and painful operations was introduced by Dr. Jackson, as being incident to its practice. Dr. Jackson then remarked, that it was his wish to alleviate or destroy all sensation of pain and suffering during operations of a surgical nature, and asserted that this result would be secured by the introduction of a new mode of practice in such operations. After making several observations upon the importance of some new treatment or agent which would prevent all consciousness of pain, Dr. Jackson said that, if I desired it, he would give or provide me with something which he knew would effect that object, and also proposed to me to introduce the same into my profession.

I have no doubt, whatever, that the plan communicated to me at the time was the same, in regard to the substance to be used, viz: sulphuric ether, and in all other respects, as he has since promulgated to the world. Dr. Jackson also remarked, that he had been induced to try its effect upon himself, when suffering in consequence of some accident, and that he had been completely successful in its application. I had no doubt, at the time, that Dr. Jackson regarded the successful application of the new agent, above referred to, to the purposes above mentioned, as not only practicable, but quite within the grasp of the scientific operator; and I expected to meet with an account of it at some future day through the scientific journals."

The following statement of Dr. George T. Dexter, now a practising physician in the city of New York, which [10] has not been before published, proves the most precise and distinct announcement of this discovery by Dr. Jackson, to him and others, and fixes the time when Dr. Jackson made a similar communication to Dr. Channing:

This, if true, is a vague suggestion, or speculation—which would not even in strict law invalidate a patent. But in a question of gratitude, or bounty, or payment, for an actual practical benefit, is *nothing*.

How is it possible, if this were more than mere speculation and talk, that the witness should not have had the fact burnt upon his memory.

"NEW YORK, Dec. 9, 1851.

"Dr. CHAS. T. JACKSON—Dear Sir: In reply to your request, I most cheerfully communicate to you what I know concerning your discovery of a means of preventing all sensation of pain in surgical operations, by administration of 'ether vapor,' by pulmonary inhalation.

This is wholly distinct from the principle of etherization.

If this were true, it is a mere valueless speculation. If a man had thought 50 years before Fulton, that steam might be used for navigation, what effect would this fact have had upon Fulton's merit?

This again is wholly distinct from the principle of etherization.

Does this witness mean to avow that he had this boon to humanity locked in his breast, there to remain forever, but for Dr. Morton?

"I distinctly remember that, while you were engaged in the geological survey of the State of New Hampshire, in 1842, and while you were exploring the vicinity of Lancaster, N. H., at which place I was at that time practising the profession of medicine, you communicated to me the properties of strong chloric ether, or alcoholic solution of chloroform, as the means of arresting the pain of a decayed tooth; I successfully employed it at that time by your advice, you furnishing me with the article employed. I remember, when conversing with you, that you also stated that you had made another and more important discovery, namely, the production of entire insensibility to pain and unconsciousness, by the inhalation into the lungs of pure sulphuric ether vapor; and you then stated how you made the discovery, and declared it to be a safe and efficient means of preventing all sensations of pain in all surgical operations.

"You spoke freely, earnestly and confidently of the discovery as a means of alleviating much human suffering. All this time you rode with me in my carriage to the town of Whitefield, for the purpose of examining the farm of Mr. Bray, and were employed most of the time during our ride in giving me an account of this most important discovery.

"You remained at Lancaster several days, during which time you were sent for in consultation with myself by Gen. Ira Young, who was suffering from a diseased spine, accompanied with much pain; and I distinctly recollect your suggesting the employment of this agent (ether) as the most effectual means of constraining the paroxysms of pain, and also giving the General an account of the discovery.

"During the winter of 1842, I visited Boston, and called upon you at your laboratory, and then asked you what progress you had made with your discovery. You replied that you had continued your experiments, and were satisfied that it would prove all, if not more, than you expected.

"I have communicated my knowledge of these facts to several of my friends, some time since, and am happy to have it in my power to reply to your letter of inquiry, by stating these facts, which occurred at a time that must satisfy any disinterested person you have, indeed, priority of claim as well as merit. I am residing now in this city, where I am practising my profession, and shall be happy to hear from you at any time. I omitted to say that the manner of administering the ether was by a sponge or handkerchief, and also that Dr. William Channing was travelling with you as your assistant in the survey.

"I am, sincerely, your friend,

"GEO. T. DEXTER."

The following deposition of Henry D. Fowle, one of the most respectable druggists of the city of Boston, fully [11] proves that Dr. Jackson had discovered the anæsthetic properties of ether as early, at least, as the spring of 1843 :

"I, Henry D. Fowle, of Boston, in the county of Suffolk, and Commonwealth of Massachusetts, apothecary, depose and say, that my place of business was, in the years 1841 and 1842, in Green street, in Boston, and near the house then occupied by Dr. Charles T. Jackson, and that I was in the habit of calling occasionally at his (Dr. Jackson's) laboratory. At one of my calls, in the year 1841, he gave me a phial containing a very strong solution of chloric ether, prepared by himself, which, if applied to a diseased tooth, he told me was a sure remedy for some kinds of toothache, and which I afterwards used as such with entire success. Some time after Dr. Jackson removed to Somerset street—I think in the year 1842—certainly not later than the spring of the year 1843, I called upon him at his house. At this, my first visit at his new residence, I had a long conversation with him, partly in his house and partly at his laboratory, situated near his house. In this conversation the chloric ether he had formerly given me for the relief of the toothache was referred to, and Dr. Jackson then spoke of some other form or kind of ether, different from chloric ether, the inhalation of which, he said, would throw a person into a state of unconsciousness, and render him totally *insensible to pain*. Dr. Jackson further stated to me that he had made this discovery when suffering from an accidental inhalation of chlorine, which caused him great distress; that he then inhaled this other kind of ether, which produced entire insensibility, and greatly relieved him. Dr. Jackson thereupon showed me a phial containing some pure ether, which he stated would produce the effects above described. I asked him if it was chloric ether. He replied in the negative, and stated that chloric ether could not be inhaled for the purpose of destroying pain, as it contained too much alcohol.

"Dr. Jackson further said to me, that he intended, at some future time, to make more experiments with this ethereal vapor, and to subject its power to destroy the pain of surgical operations to a practical test; but that his attention was then so completely engrossed by the work connected with his geological surveys, that he had no leisure for any other researches. Dr. Jackson added in words to the following effect: 'If you will come to me some time hence, and inhale this ethereal vapor, you can have a *tooth extracted or a limb cut off* without pain, and without knowing anything about it.' His declaration appeared to me so extravagant and strange, that, at first, I thought he could not be in earnest; on finding, however, that he spoke seriously, and actually meant what he said, the wonderful nature of the declaration, together with the air of confidence and sincerity with which he spoke, made an impression on my mind which I can never forget. I then urged Dr. Jack-

Local application to a tooth distinct from the discovery.

See Ed- dy, p. 286. This did not convey to Dr. J. the belief that a patient *could be cut with a knife and feel no pain.*

Is any further proof necessary to shew that if he ever entertained the idea it was a mere floating speculation

See the Majority Report on the subject of Dr. J's. alleged inductions &

speculations, and as to the testimony of witnesses touching same.

son to keep this discovery to himself, for it would prove a fortune to him; and warned him that, if he communicated it to others as freely as to myself, it would be stolen from him.

“Subsequently, in the year 1846, and before the 30th of September of that year, Dr. Jackson called at my shop, on Prince street, being on his way to J. H. Blake’s (chemist) office, on Ben-net street. At this interview I referred to the aforesaid discovery he had communicated to me. Dr. Jackson then again spoke with perfect confidence of the power of the ethereal vapor to destroy the pain of surgical operations. He also stated that he had been and was then too much engaged to make further experiments with this new agent, and he was then about to be absent from the city for some time, but that if I would call at his laboratory [12] some time during the following winter, he would show me its effects. On another occasion, Dr. Jackson asked me if I would consent to be his patient, and allow him to make trial of the ether upon myself. I had previously inhaled various gases at his laboratory on Green street, and he said that the ether vapor would produce very different effects from either of them.

“I cannot now state, from recollection, that Dr. Jackson, at either of the interviews heretofore alluded to in this deposition, specified the particular kind of ether he had in view for preventing the pain of surgical operations; but I have no doubt whatever it was sulphuric ether. I am certain it was not chloric ether.

“I have never had any conversation with Dr. Jackson respecting the ‘ether controversy,’ except at a very brief casual interview in State street, in the last week of December, 1848.

“Early in the spring of the year 1847, I called upon Dr. Jackson to ask him if the ether with which Dr. Morton was operating was prepared by him, (Dr. Jackson.) I was then intending, if such should prove to be the fact, to have two teeth extracted by Dr. Morton, and to inhale the vapor. Dr. Jackson then advised me that Dr. Morton was not a safe or judicious person to administer the ether. Dr. Jackson expressed entire confidence in its safety and efficacy, but, on account of the irritable state of my lungs, he thought I had better not inhale it.

“HENRY D. FOWLE.”

“SUFFOLK, }
February 4, 1849, } ss.

“Then personally appeared Henry D. Fowle, hereinbefore named, and made oath that the foregoing statements, by him signed, are true.

“Before me,

“CHARLES E. ALLEN,

“Justice of the Peace.”

made, from the facts stated by Dr. J., if true, as stated, and was of no value if made. See the examination of eminent physicians and surgeons in Boston, before the U. S. Commissioner, in the presence of Dr. J.’s counsel, viz: Dr. Townsend, p. 355; Dr. Bigelow, p. 319; Dr. Warren, p. 301; Dr. J. M. Warren, p. 386; Dr. Gould, p. 265; Dr. Peirson, p. 456. See also Curtis on Patents, sec. 48, &c.

The following unpublished letter is from Mr. D. Jay Browne, of the city of New York, well known as a scientific and agricultural writer, and author of an excellent work on American Forest Trees:

“NEW YORK, *December 19, 1851.*

“DEAR SIR: In reply to your note of the 6th, requesting me to communicate in writing what I know concerning your discovery of a means of preventing the pains incident to surgical operations, anterior to the year 1846, I would state, that I have examined my diary, and find that, while I was engaged as engineer in locating the Northern railroad in New Hampshire, in November, 1845, I called at your laboratory in Somerset street, Boston.

“You had recently returned from a mining survey on the shores of Lake Superior, and told me of some of the important discoveries you had made there of copper, silver, and iron mines. I had a long conversation with you in regard to the importance of your *publishing* your valuable researches, which, I fear, you are too much in the habit of delaying. I had particular reference to your chemical researches in relation to agriculture. You made your usual excuses for your neglect, saying that you wished to review them before you gave them to the public, as you had several other discoveries to publish at some future time, which you intended to make free to the world. You then communi- [13]

ted to me, as one of the most important discoveries you had ever made, the means of paralyzing the nerves of sensation by the administration of ethereal vapor by inhalation into the lungs, and spoke with great enthusiasm and earnestness of the importance of this discovery in surgery, stating that the means proposed by you was both efficient and safe, and would prevent any sensation of pain, even in the most severe surgical operations. The application of this means of preventing pain in our domestic animals, which require difficult surgical operations in veterinary art, struck me as of importance to farmers and others interested in their breeding and management; and that part of your conversation which related to the treatment of animals is most strongly impressed upon my memory, on account of the interest I had taken for so many years in all subjects connected with agriculture, or the operations of nature of any kind.

“I remember, very distinctly, how graphically you described the manner in which you made this discovery, which arose from an accident* that happened to you while hastily preparing some chlorine gas for one of your lectures. You spoke of this discovery as one made by you several years before, and as the most important you had ever made. You confided it to me as one of your former pupils, and I strictly held it sacred and never divulged the secret before it was made public by yourself, the next

This could have amounted to nothing but mere barren speculation See *ante*.

See cross-examinations of surgeons, &c., by Dr. Jackson, before the commissioner at Boston, where, with a view of discrediting Dr. Morton's statement as to the experiment on his dog, he takes the ground that the effect on quadrupeds is disastrous. Here it would seem he made it very valuable to farmers, &c.

* See also the examination of J. D. Whitney, Esq., before the U. S. Commissioner, Webb. Mr. Whitney was Dr. J.'s assistant in his laboratory at the time fixed by Dr. J. for the occurrence of the accident, and boarded in his house. He heard nothing of it.

year, when, on the occasion of a dispute about priority of discovery, I deemed it my duty to you to speak of it freely to my friends, and by this means it came to your knowledge that I had retained in my memory the facts I now communicate to you in writing, as I did to you orally during your late visit to this city. You asked me what name you gave to the agent employed by you at the time you made your communication to me in 1845; you then called it *hydric ether*, which I understood to be sulphuric ether that has been washed by water, for the purpose of removing any alcohol or acids contained in it. I had long since supposed that all dispute about priority of discovery of anæsthesia by ether had been settled in your favor, or I should have imparted to you this information sooner. Here, no serious doubts exist with regard to your rights as the original discoverer, and I trust that the verdict of mankind will be unanimous in your favor, as that of all scientific men is, who have had an opportunity of examining the evidence of the case.

Witness
the Boston
"scientific
men," all
the other
way.

"Respectfully, I am your friend, &c.,

"D. JAY BROWNE.

"Dr. C. T. JACKSON, *Boston.*"

"Signed in my presence, this 19th day of December, 1851.

"ADONIRAM CHANDLER,

"*Cor. Sec. of the Am. Institute.*"

Dr. Jackson communicated his discovery to Mr. Joseph Peabody, in February, 1846. Mr. Peabody, after having graduated at Harvard University, was at that time a student in chemistry in Dr. Jackson's laboratory. He is at present a student at the School of Mines of France. He narrates the circumstances under which the communication was made to him, as follows:

This again
is mere bar-
ren specu-
lation, if
true as he
dates.

"I was suffering from a severe toothache; and, intending to have two teeth extracted, a fellow-student urged me to try the power of mesmerism to effect insensibility to pain, offering to attempt to produce the magnetic state. I consented, and he [14] commenced the experiment. While we were thus engaged, Dr. Jackson came into the office, and remarked that it was a loss of time and labor to attempt to repeat the experiments of the mesmerizers, for their insensibility was only a pretence. 'If you want to have your teeth extracted without pain,' said he, 'I have mesmerism bottled up in the other room—in the shape of sulphuric ether.' He then repeated to me minutely the effects which would be produced by the inhalation of sulphuric ether. I asked him where he got his information from. He said that he had tried it on himself; that, about four years before, he inhaled it freely, with the view of ascertaining the effects of its vapor on the system, and was astonished to find it produced an entire loss of consciousness; that this state speedily

passed away, without leaving any unpleasant effects. He said that subsequently, while engaged in preparing some chemical experiments, he accidentally got his lungs full of chlorine, which produced a sudden irritation and severe distress; that, hoping to obtain relief, he applied sulphuric ether; that he breathed the vapor copiously—having poured the ether upon a cloth which was laid over his mouth. He soon became unconscious and perfectly free from pain, although the trouble in his lungs returned when the effects of the ether had wholly passed off. He urged me to apply the ether when I wished to have my teeth extracted, assuring me of his confidence that I would escape the pain of the operation. He added that ether prepared expressly for the purpose, and freed from its alcohol, would ensure success. I immediately determined to make the trial; and as I was obliged to return to Salem, I there commenced to re-distil some ether with sulphuric acid.

“In the mean time I consulted several chemical and medical works (in a large scientific library to which I had access,) in relation to the effects of sulphuric ether; and found that all the authorities stated that the action of ether upon the system was injurious, and warned against its use. My father was also averse to my breathing it. I therefore concluded that the operation proposed would not be sufficiently serious to warrant me in using any application pronounced dangerous by high authorities. Upon my return to Dr. Jackson’s laboratory, I stated to him the opinion of chemical and medical writers in relation to the use of ether. He said that he was aware of the opinions in the works upon the subject; but, notwithstanding their views, he was satisfied that he was right—that the application of ether would be perfectly harmless, and its effects would be what he had stated.

So that
not even
Mr. Pea-
body ven-
tured to act
upon Dr.
J.’s specu-
lation.

“This was not the only occasion on which the subject of the effects of ether was introduced. He alluded to it in several subsequent conversations, and always with the same confidence, so that, when I learned the final success of the application, I was not at all surprised.”

The evidence above presented furnishes the strongest proof that Dr. Jackson’s statements, in regard to his experiments and inductions relative to sulphuric ether, are true. It is admitted by the majority report, that “these statements, if true, prove that this discovery, so far as private experiment and philosophical deduction could go, was as full and complete in 1842 as it was on the morning of October 1, 1846, after Dr. Morton’s successful operation on Eben Frost.” The undersigned considers it established by this evidence that the discovery, to the full extent to which it has been defined in the first four propositions presented on pages 4 and 5, was complete in the mind of Dr. Jackson previous to

March, 1846, before Mr. Morton claims to have made any experiments with sulphuric ether.

The witnesses above named have never been impeached [15] or contradicted. The only answer which the opponents of Dr. Jackson have given to this evidence, is, that Dr. Jackson's conduct was inconsistent with his possession of this great discovery. It is urged that, if his statements were true, he would have hastened to verify his discovery; that he would have at once announced it to the world. The majority report demands, "if this statement be true, how it happens that no contemporary written paper, no private memorandum is exhibited." These objections can be easily answered.

e. g., the discovery by him of Professor Morse's Telegraph. See Amos Kendall's pamphlet.

Dr. Jackson's conduct in this matter was perfectly consistent with his course in relation to his other discoveries.

Mr. Hayes, Dr. Jackson's counsel, in his argument before the committee, remarked: "Dr. Jackson's friends have often remonstrated with him against his procrastination in publishing his discoveries. The publication of some of his most important discoveries, as, for instance, that of the presence of chlorine in meteoric iron, was delayed for four years.* One of his most important scientific labors has been his researches on gastric juice. The results of his observations were communicated to individual physicians." Dr. Jeffries, of Boston, in an address delivered before the Suffolk District Medical Society, thus speaks of them: "Let us remember with grateful pleasure that one of our own number, Charles T. Jackson, M. D., upon whom has been conferred the highest honor that can be conferred from abroad, did, in a series of experiments on gastric juice, so long ago as in the year 1834, go far to show the chemical affinities of vital action." These researches have not been published by Dr. Jackson, to this day. The objection that Dr. Jackson could not have made the induction at the time he claims, because he was not more prompt in announcing it to the world, has no weight against the positive testimony that he did make this induction a long time before he communicated it to Mr. Morton. In the language of Mr. J. H. Abbot, "The objection, if admitted to be valid, would be subversive, in not a few cases, of the most clearly established rights of discovery. Harvey did not announce to the world his great discovery till twelve years after it had been made. It was more than a quarter of a century after Jenner had conceived the idea of vaccination, and sixteen after his friend John Hunter was accustomed to allude to his views, in his lecture room in London, before he made the direct application of vaccine matter in the manner which is now common. It is well known that Newton

The testimony is clear that Dr. Morton had already the same idea, originally, and was actually engaged in verifying it.

* Dr. Jackson, as it appears from Silliman's Journal of Science, discovered chlorine in meteoric iron in 1834, and published no account of his discovery till the year 1838. Other similar facts might be added.

forbore to publish most of his great discoveries for many years after they were made.

"The same cautiousness in regard to the publication of his discoveries, characterized Wollaston, in a remarkable degree, as it has many other minds of the highest order. Much of this same cautiousness is known to belong to Dr. Jackson, and hence the confidence with which his discoveries are received in Europe at their first announcement."

The question is not whether other men would have conducted as Dr. Jackson did, in delaying his experiments and public announcement of his discovery, but, whether Dr. Jackson's course was consistent with his *own* character and habits. Dr. Jackson's most intimate scientific friends have always spoken of his conduct in this matter as precisely what they should have expected of him. Dr. Bell, one of Dr. Jackson's intimate friends, says: "One of the great stumbling blocks in the minds of those who know nothing of the peculiar mental constitution of certain men of ingenuity and science,—the circumstance that Dr. Jackson, if conscious of such a mighty discovery, did not make a [16] great *bruit* about it,—was perfectly explained in the minds of all of us who intimately knew him and his modes of thinking and action; we feel that what he did, was precisely what *à priori* we should have expected him to do. Indeed, I have often spoken of his course, in the early days of this discovery, as exactly analogous to his course of action in relation to certain valuable discoveries of his, in the geological surveys of Maine and New Hampshire."

Mr. D. Jay Browne was remonstrating with Dr. Jackson against his habit of delay in publishing his researches, when Dr. Jackson, after excusing himself for his neglect by saying that he wished to review his researches before giving them to the public, referred to this very discovery of anæsthesia, which he intended, at some future time, to make free to the world.

Dr. Jackson, in fact, had other and sufficient excuses for not extending his experiments of verification. He had already verified his discovery upon himself;—experiments were needed only to satisfy the world. He had no facilities for making these experiments; he had wholly retired from the practice of medicine and surgery. He, therefore, had access to no subjects for experiment. He naturally shrunk from going to the hospitals, where the chemists are regarded with distrust and jealousy by the surgeons, and where, as events have shown, the largest honor of successful experiment would have been claimed by the verifiers. Moreover, during the whole period, from 1841 to 1846, Dr. Jackson was overwhelmed with other pressing duties. From 1840 to 1844, he was engaged in the geological survey of New Hampshire. During eight months of each year he was in the field. The four months spent in his laboratory, were devoted to chemical researches connected with the survey. The extent of his

See evidence of the Boston surgeons as to this pretended verification (cited in note p. 506.) This is without any foundation in the evidence; and is in itself a libel upon the institutions to which it refers.

Is this a report on the testimony? If so, where is the evidence here referred to? labors will be seen by referring to the large quarto volume containing his report on the geology of New Hampshire, a volume containing the most valuable original contributions to agricultural chemistry that have ever appeared in this country. Before this report was printed, he was called to make geological explorations on Lake Superior. During the years 1844 and 1845, and part of 1846, he was actively engaged in the explorations in that district, and the metallurgical researches connected therewith, which brought to light the valuable copper mines of Kewenaw Point.*

Again it is enquired, Is this a report on the evidence? or a partisan eulogium of Dr. Jackson? But there was another and higher reason why Dr. Jackson did not abandon all other duties to devote himself to experiments of verification. During this whole period, he was constantly discovering and developing new truths in science. It is the law of Providence that those rare minds which are capable of discovering truth, do not measure the value of their discoveries by practical standards. Their province is discovery, not application. As the search for each new truth effaces from the mind the thoughts of the last discovery, they are kept to their higher work by that benign arrangement which thus provides for the extension of knowledge among men. Such men strike the sparks and kindle the fires which common men can feel and tend. The objections now answered could only come from those who cannot appreciate the man of genius, and who cannot imagine that a philosopher

It is difficult to conceive, and altogether above common minds to "appreciate" such a man of genius as is here described, "constantly discovering and developing new truths in science," and whirled along his luminous

[17]

ings and limited experiments, as in truths which had received the most extended demonstration and verification. At the commencement of this controversy,† and for several months after it began, Mr. Morton, his professional advisers and advocates, rested his claim to this discovery solely upon the ground of his performance of an experiment of verification, although it was devised and committed to him by Dr. Jackson. Dr. Jacob Bigelow admits that Dr. Jackson "made partial experiments and recommended, but did not make, decisive ones." Mr. N. I. Bowditch, the most zealous and prominent advocate of Mr. Morton, in his Report to the Massachusetts General Hospital, argues in substance that the act of first administering ether to a patient, though under Dr. Jackson's instructions, and on Dr. Jackson's expressly assumed responsibility, constituted Mr. Morton the discoverer of etheriza-

way so rapidly that he cannot hold himself long enough to give the world such a blessing as this discovery of etherization.

* "The peninsula of Kewenaw Point has been known for some years to contain important mines of native copper, which have been explored with care by many American geologists, and particularly by Dr. Charles T. Jackson, well known by his labors upon the geology of many parts of North America, and more celebrated still on account of his important discovery of etherization."—*Llie De Beaumont, Systèmes des Montagnes*, tom. ii., page 702. Paris, 1852.

† This is wholly without foundation. See Morton's letter to Wells, p. 124. See his advertisements and see the testimony.

tion. He says: "He [Mr. Morton] administered sulphuric ether to a patient. By so doing he made the discovery." Dr. H. J. Bigelow says:—"He who verifies the suggestion is the true discoverer."

If anything can be established by human testimony, it is proved that Dr. Jackson, on and before the 30th day of September, 1846,* had clearly and fully formed the induction that the nerves of sensation could be paralyzed by the inhalation of pure sulphuric ether, to such an extent, that the severest surgical operations could be performed without causing pain, and that he had devised the means of applying it with perfect safety to the patient.

By all the principles recognized among scientific men, the discovery was made when the induction was complete in the mind of Dr. Jackson, and nothing remained to be done but to subject it to the test of actual experiment. *No experiments of verification performed by another, can take the right to a discovery from him who first formed the induction, and prescribed the means of verifying it.*

The doctrine which has been so earnestly asserted in behalf of Mr. Morton,† that verification experiments constitute the discovery, has been repeatedly urged in other cases, and as often repudiated by the scientific world. A few cases may be referred to which are directly in point. Franklin observed‡ that the form of the electric spark discharged from the prime conductor of an electric machine, was like chain lightning. He observed that bodies struck by lightning were affected very much like those through which an electric spark was passed, and he made a series of experiments with the electric machine, in order still further to expose the relations of lightning and electricity. He suspended flocks of cotton from the prime conductor, and observed that when the conductor was charged, the cotton stretched downward towards the table. He placed a needle-point below, when the electricity was drawn off from the cotton, and it was drawn back to the conductor. Soon the conductor itself was discharged silently of its electricity, so that it would give no spark so long as the needle was beneath it. He moreover observed a star of light upon the needle-point so long as it was beneath the electrified conductor. Now, from these premises, and comparatively few and trivial experiments, Franklin boldly declared his conviction that lightning and electricity are identical; and, still more, he said that, if a pointed rod, connected with the earth, were erected towards a thunder cloud, it would silently draw off its electricity, and prevent a shock. Notwithstanding the loss of life and property to be averted by his discovery, he did not hasten to erect the conductors which were harmlessly to snatch the thunderbolts from the

proceeds on the supposed truth that Morton was the mere instrument of Jackson, and that Jackson used him to execute his prescription: whereas, it is clearly proven by many witnesses that Morton had for months before devoted himself to the verification of this idea originally conceived by himself; and Mr. Chandler's evidence p. 258, is clear that Jackson first claimed only to have said to Morton, "WHY DON'T YOU TRY ETHER," which Morton was already experimenting with.

But if it were true (as it is not,) see Curtis on Patents sec. 47, 48, and apply these to the evidence of Hayden, Wightman, Metcalf, Chandler, &c., &c.

* See note ante, p. 506

See last note.

† There is great care observable throughout this report to call Dr. Morton Mr.—although his diploma as M.D. was in evidence before the committee.

‡ It requires the happy state of mind exhibited at p. 517, to erect Dr. Jackson's so-called induction into equality with Franklin's, or to fancy any analogy. The whole argument here

heavens. He even suffered his grand discovery to be first verified by others. A month before he performed the celebrated experiment with a kite, a French philosopher, Dalibard, acting upon the suggestions of Franklin, and adopting the means which he had indicated, erected a rod at Marly-la-Ville, near Paris, and employed Coiffier, an ex-dragoon, to watch it during a thunder-storm, and the ex-dragoon, in fact, took the first electric spark from the rod. By the unanimous verdict of mankind, the glory of this discovery has been awarded to Franklin, as it was by him that the method of obtaining it was originally devised. If the verification doctrines, urged by the opponents of Dr. Jackson, are sound, upon the tomb of Coiffier, the ex-dragoon, and not upon that of Franklin, should be inscribed the commemorative motto, "*Eripuit fulmen cælo.*"

There is, however, one particular in which Franklin was greatly below Jackson—the case of Franklin presents other remarkable analogies to the present. In the latter the attempt has been made to show that there has been no discovery; that anæsthesia was known to the Greeks and the Chinese; that even the properties of ether were long ago well known, and that Dr. Jackson was only posted up in the current knowledge of the day upon this subject. So, in the case of Franklin, the antiquarians attempted to take from him the glory of his discovery by asserting that the very experiment devised by Franklin had been performed a hundred years before. They showed that a sentinel who mounted guard on one of the bastions of the castle of Duino, on the Adriatic sea, when he observed indications of a coming storm, was in the habit of taking a halberd, always ready for the purpose, which he applied to an iron rod standing in a vertical position; on observing sparks at its point, he rang a bell to warn the peasants in the field and the fishermen at sea to betake themselves to a place of shelter. It is well known that for a short time it was contended that the discovery of the new planet Neptune was made by Galle, who first saw it. Galle, indeed, verified the discovery by using the telescope as indicated by Leverrier, who, by calculations founded upon the perturbations of Uranus, was enabled to direct the observer to the point in the heavens where he should find it. The final judgment of the scientific world coincides with that of Sir David Brewster, as given in his address before the British Association for the advancement of Science, in 1850. "The planet Neptune was discovered by Adams and Leverrier before a ray of its light had entered the human eye."

This is far-fetched, and as little applicable as the comparison to Franklin.

The same laws recognised by the scientific world have restored to Watt the honor of being the discoverer of the composition of water, though there is no evidence or allegation that he made any experiments upon the subject.

He drew his inference or deduction from facts furnished by Priestly. His conclusions were verified by the more accurate experiments of Cavendish. The discovery is awarded to Watt upon the ground that, from reasoning on the facts furnished by Priestly, he first

drew the inference that water is composed of oxygen and hydrogen combined and condensed, with a loss of a portion of their latent heat. (Vide Arago and Dumas, Eloge of Watt.)

If the cases above cited have prevailed, *a fortiori* must the vastly stronger case of Dr. Jackson. According to the award of the French Academy in 1850, Dr. Jackson first verified upon *himself the physiological fact* that persons who inhale etherial vapor are for a time deprived of all sensibility. Moreover,* the experiments for complete verification, or rather that demonstration which should satisfy the world, were made under Dr. Jackson's advice and direction, and the very means were pointed out by him. All the results were attained which he had given full assurance would follow from those experiments. To such an extent, as it appears from the testimony of Messrs. Barnes and McIntyre, was the responsibility assumed by him, that Morton was in fact simply his mechanical agent. The case comes emphatically within the principles declared by Rev. William Whewell, Historian of the Inductive Sciences, who says: "I do not concede that experiments of verification, made [19] after a discovery has been clearly brought to view† by one person, and devised by the discoverer, and committed by him for performance to another, give the operator a right to claim the discovery as his own." (Letter to Dr. C. T. Jackson.)

Upon these precedents and principles Morton's operations can give him no claim to the discovery; for no great original discovery can be made in the inductive sciences, to quote Mr. J. H. Abbot's admirable paper, "without a single original experiment, without a single independent, original observation, without a single philosophical induction—the essential, the only common element in all discoveries in the inductive sciences—without, in fine, originating a single new idea. The most Mr. Morton can claim is, not in any degree discovery, but performance, verification, endeavors to introduce into practical use the discovery of another man." (Littell's Living Age, No. 214, p. 569.)

The scientific precedents furnish us cases which overthrow another pretension of Mr. Morton. He alleges that he had been seeking for some means of preventing pain in dental surgery anterior to Dr. Jackson's communication to him on the 30th September, 1846. No one, not even himself, alleges that he had discovered any such means anterior to that time. Seeking for a discovery is not making it. The following case is in point: Halley, Hook, and Wren had been seeking to establish, and were upon the very verge of making, the discovery of the law of gravitation, to wit: that the force of gravity follows the inverse duplicate proportion of the distances when the discovery was made by Newton. Halley, meeting with difficulties which neither he nor

with ether to verify it, before his interview with Dr. J. But Dr. J.'s counsel thinks that M. was not entitled to think, or speculate on the subject, because Jackson was "the very man of all others to have made the discovery;" ante, p. 497.

The award of the French Academy was upon Dr. Jackson's own account of the matter. Dr. Morton's facts were not before them.

* An examination of the testimony of the surgeons of the hospital, and of Eddy, Chandler and others, will show that this is mere assumption.

† See the evidence, and say whether this "discovery had been clearly brought to view" by Dr. J.

This is uncandid. Dr. Morton's allegations, and his proofs, are, that he being possessed originally of the idea, was for month's engaged in experimenting

Hook, nor those to whom he applied for assistance, were able to solve, went to Cambridge to consult Newton, "who," in the words of Whewell, "supplied him with what he had so ardently sought for." (Whewell's History of the Inductive Sciences, vol. 2, pp. 150-1; London edition, 1837.)

The whole civilized world awards this discovery to Newton. Granting all that Morton has alleged in relation to previous experiments with ether, upon his own showing he was unsuccessful until Dr. Jackson "supplied him with what he so ardently sought for." Upon the principles of this case, his alleged seeking, and almost finding, gives him no claim to Dr. Jackson's discovery.

See the testimony of all the surgeons of the hospital, of Mr. Chandler and others, touching Jackson's "Agency" in this. We come now to the period when this discovery was subjected to those practical tests and received that verification which demonstrated to the world that the most severe physical suffering can be prevented by human agency. Whatever may have been Dr. Jackson's delay in bringing forth his discovery, the undersigned considers the proof conclusive that the final demonstration and publication of this discovery were effected mainly through the agency of Dr. Jackson. We will now consider the evidence presented in support of the fifth proposition, before announced, namely: that Dr. Jackson caused experiments to be made, under his directions and on his responsibility, which verified his conclusion as to the power of sulphuric ether to prevent the pain of the severest surgical operations.

On the 30th day of September, 1846, he instructed Mr. W. T. G. Morton, a dentist, of Boston, how to apply the ether, and induced him to test, under his direction, and with an express assumption of all the responsibility of the experiment, its power to destroy pain in dental operations. On the same day Mr. Morton, following the directions he had received, extracted a tooth from a patient without causing him any pain, and thus verified

See Hayden, p. 193 —that Morton had determined to do so before the time herestated. [20] Dr. Jackson's induction so far as the extraction of teeth is concerned. The next day Dr. Jackson induced Mr. Morton to go to the surgeons of the Massachusetts General Hospital, and request permission to make trial of it to prevent the pain of *severe surgical operations*. The results of these trials of sulphuric ether *completely* verified Dr. Jackson's conclusion as to the power of that substance to prevent the pain of the severest surgical operations.

As to the testimony of these witnesses Barnes and McIntyre, a few weeks after the transaction, is here subjoined: "I, George O. Barnes, of Plymouth, in the Commonwealth of Massachusetts, depose and say: That in the fall of 1846 I was a student in chemistry with Dr. Charles T. Jackson; that in the Barnes particularly, see the testimony of Mr. Whitney before Commissioner Webb, p. 295.)

month of September I was at work in the back room of Dr. Jackson's laboratory, when Mr. W. T. G. Morton passed through the room, as I supposed to go into the house, which adjoins the laboratory. He soon returned, having in his hand an India-rubber bag belonging to Dr. Jackson. As he went into the apparatus or glass-room, I heard Dr. Jackson ask Morton what he wanted to do with the bag. He replied that he had a refractory patient, who would not allow him to take out her tooth, and that he wished to act on her imagination, so as to induce her to submit to the operation; that he meant to fill the bag with air, meaning, as I understood, atmospheric air, which would give it a formidable appearance. He then asked how he should go to work to distend the bag. 'The lungs or a pair of bellows,' said Dr. Jackson, 'can do that.' 'But,' continued Dr. Jackson, 'your proposition, Morton, is very absurd; the patient will not be deceived in that way; you will produce no result, and be denounced as an impostor.' 'I don't know that,' replied Morton; 'I think, with this bag under my arm, well blown up, that I could make her believe anything.' While saying this he placed the bag under his arm, and, pressing the bag with his elbow several times, illustrated the manner in which he would operate. 'If I could once get her mouth open,' said Morton, 'I would have her tooth out. Why,' said he, 'a man once bled to death by the mere force of imagination.' As he was proceeding to give an account of this experiment, Dr. Jackson interrupted him, and said: 'Pooh! you don't credit such a story as that, surely! I advise you to have nothing to do with this idea of using atmospheric air to deceive your patients; it will only injure you.' Morton replied, 'I don't care. I'll blow it up.' Morton then left Dr. Jackson, and was going from the glass-room, where the latter part of the conversation had been principally held, into the front room towards the street door, with the bag swinging in his hand, when Dr. Jackson followed him, took the bag from his hand, and threw it on the floor. There had been also some conversation concerning nitrous oxide, but not one word concerning sulphuric ether; and Morton had not asked Dr. Jackson to suggest to him anything to prevent pain during his operations of extracting teeth. Dr. Jackson then addressed him, and said: 'Now, Morton, I can tell you something that will produce a real effect. Go to Mr. Burnett's, the apothecary, and get some very strong sulphuric ether—the stronger the better—spatter it on your handkerchief, put it to your patient's mouth, take care that it be well inhaled, and in a minute or two perfect insensibility will be produced.' 'Sulphuric ether!' said Morton, 'what is that? Is it gas? Have you got any of it? Show it to me.' Dr. Jackson went to the laboratory case, and took down the bottle of sulphuric ether, which Morton examined

Is it conceivable that Dr. Morton really asked how he should inflate a gas bag, "and if he did, was this the agent employed by Dr. Jackson to verify his most important induction?"

See above, and see the testimony of Hayden, Metcalf, Wightman and others,

clearly proving that Morton was familiar with ether and experimented with it long before this date (Sept. 30.) The date prior to July 6, is fixed beyond all peradventure by Metcalf, p. 222, and prior to Sept. 28, by Wightman, p. 232.

and smelt of as though he had never seen the article before, saying, it was 'queer-smelling stuff.' 'Are you sure,' said Morton, 'that this will do it?' 'Yes,' replied Dr. Jackson, 'I am sure.' The rest of the Doctor's reply I did not hear, as I passed into the other room for some purpose, being engaged at the time in analytical work. Afterwards I heard Morton several times repeat, 'Are you sure it will do it?' He even asked Mr. McIntyre, another student in the laboratory, and myself, if we thought it would do it. 'Won't it hurt the patient?' said he. 'No,' replied Dr. Jackson, 'it will not do any harm; for I have tried it on myself.' He then briefly described his own experiments and the effects, and said, 'that the patients, after breathing a dozen breaths, would fall back in the chair insensible, and you can do with them as you please without their knowing anything about it, or feeling any pain; so that you can take out their teeth at your leisure.' Dr. Jackson distinctly said, 'it will not do the least injury, I assure you.' Indeed, Dr. Jackson urged

This, if it has been said, was mere speculation.

As to responsibility see the testimony of the surgeons of the hospitals, of C. Eddy and others.

the matter very earnestly and with perfect confidence, taking on himself the whole responsibility. He urged Morton to try it on himself, saying that it was the only way to convince himself. 'Shut yourself up,' said he, 'in your room, and breathe it as I have directed.' At the same time, Dr. Jackson, taking a handkerchief and bottle in his hands, went through the movement of applying the ether to it, and, placing the handkerchief to his mouth, made several deep inhalations, saying, 'this is the way you must take it.' Morton then left, promising to try it immediately. After Morton left, the students in the laboratory conversed considerably about the proposed experiment; and some one asking the question whether Morton would succeed, Dr. Jackson said confidently, 'he will, if he follows my directions.'

"Either on the afternoon of the same day, or the next day—I am not positive which—Morton came to announce the success of his trial. He stated that he tried it on a patient with complete success; for, while he extracted a tooth, the person was insensible, and knew nothing about it. Dr. Jackson expressed no surprise, but appeared as if he had expected this result. Mr. Morton intended soon to perform another extraction. Dr. Jackson then said to him, 'you must go to Dr. Warren, and obtain his permission to administer it at the Massachusetts General Hospital, and if possible it should be in a capital operation; for the people will not believe in the insensibility to pain in case of a mere tooth, since it is very common for patients, in an ordinary case, to say that it did not hurt them, when the twitch is very sudden, and the operation skilfully performed; this proof would not be regarded by the public as satisfactory.' Morton strongly objected at first to going to the hospital; that everybody could smell the ether, and it would not be kept secret, which it was Morton's object to do. He asked if something could not be put into it which would conceal the ether odor. Dr. Jackson replied, 'yes;

See the testimony of Dr. Warren and others.

some French essence, as the oil of Neroli, may answer in a measure, and a pleasant perfume will be left on the patient ;' remarking, laughingly, 'the scent of the roses will hang round him still.' After some argument, and Dr. Jackson's further insisting upon it, Morton promised to go to the hospital.

"In the course of this conversation, Morton repeatedly begged the doctor to keep the matter a secret. 'No!' answered Dr. Jackson, 'I will have no secrets with my professional brethren. I intend to give Dr. Keep the same information which I have given to you;' and, in point of fact, every one who afterwards came to get information on the subject, was at once told all about it.

"Some time after this, when the experiments had proved successful at the hospital and elsewhere, and while the [22] patent was being negotiated, the right of using the ether having been assigned to Morton, Dr. Jackson urged him, in my presence, to present the free use of it to the hospital, saying that they would not buy a patented article, and it ought to be given to the poor. Morton was very reluctant to do this, and asked if there were not some pay patients at the hospital who could afford to remunerate him for administering the ether. This was argued a long time, and Morton finally said that he would do so.

He says he had it already for 4 years, and had neither given it to rich or poor.

"A few days after, Morton called at the office when Dr. Jackson was not in, with a glass bulb in his hand, having only two openings. He proposed to fasten an India-rubber bag upon one of the openings, to contain the sulphuric ether, a sponge to be placed in the bulb, and the patient to inhale the ether from the other opening; there being no aperture for the admission of atmospheric air. His intention was, he told us, that the patient should breathe the ether vapor pure, without admixture of atmospheric air. I told him of the indispensability of atmospheric air, knowing very well that it would be dangerous to breathe ether vapor without the common air being mixed with it. He was told, also, that the ether would dissolve the India-rubber. He then said that he would stop the opening with a cork, instead of the bag; intending still to exclude the common air.

"Some time after I heard Dr. Jackson speak of Morton's being reckless. He had heard that Morton did not manage well in the administration of the ether. Dr. Jackson expressed his opinion that it ought to be in the hands of careful and skilful persons. In fact, he was sorry that he had communicated his discovery to Morton, and that he had employed him to make those early experiments with the ether. He spoke strongly on these points.

"GEORGE O. BARNES.

"BOSTON, May 21, 1847."

"Sworn before me.

"JOSIAH QUINCY,

"Justice of the Peace."

"I, James McIntyre, of Bangor, in the State of Maine, depose

See Whitney's statement as to Barnes.

and say, that in the month of September, 1846, I was a student in chemistry with Dr. Charles T. Jackson, of Boston. In the latter part of September, I was sitting in the front room or office of Dr. Jackson's laboratory, when Mr. W. T. G. Morton came in and asked for Dr. Jackson, and passed through the office into the house adjoining the laboratory. In a short time Morton came into the back room with an India-rubber bag in his hands, and passed through into the glass-room. Dr. Jackson came in with him, or shortly afterwards. Dr. Jackson asked Morton what he wanted with the bag. He said he wished to blow up the bag, and act upon a patient's imagination by making her breathe from the bag. The precise words of Morton's answer I do not remember; but the purport of it was, that he wanted to extract some teeth from a lady who objected on account of the pain, and that he expected, by making her breathe from the bag, to believe that she would suffer no pain from the extraction of her teeth. In order to show the effect of imagination, he gave an account of an experiment upon two criminals, one of whom was bled to death, and the other, having his arm pricked and warm water poured upon it, died from the effect of the imagination. Dr. Jackson said that it was absurd, and never occurred. He told Morton that it would be useless to try that, as he could not act upon her imagination; and, if he failed, she would send [23] him down as a humbug. There was then some conversation about the use of exhilarating gas; whether it was first mentioned by Dr. Jackson or Morton, I do not remember. Morton asked if he could not make it. Dr. Jackson told him that he could not succeed without apparatus and the assistance of some one who had some chemical knowledge; and that, if he undertook to make it, he would get nitric oxide instead of nitrous oxide. He asked Dr. Jackson if he could not prepare some for him; this Dr. Jackson declined to do, on account of his business. Morton was then going away with the bag, and I have no doubt intended to use the bag by distending it with atmospheric air.

"As he was going, Dr. Jackson told him that he could tell him something that would make the patient insensible, and then he could do what he had a mind to with them. Morton asked what it was. Dr. Jackson then told him to go to Burnett's, and get some pure sulphuric ether, and pour it on a handkerchief, and put it to the patient's mouth, and let her inhale it. Morton asked what sulphuric ether was, what kind of looking stuff it was. I stayed in the front room while Morton and Dr. Jackson went to look at the ether. From Morton's question about the ether, I am satisfied that he knew nothing about its properties or nature. I heard Morton ask Dr. Jackson very particularly whether it would be safe to use it. Dr. Jackson assured him that it was perfectly safe, and alluded to the students at Cambridge having used it. Morton appeared to be afraid to use the ether, and asked him several times if it was safe. Dr. Jackson advised Morton to try

it himself. Morton asked me if I would be willing to take it. I told him that I would. The whole conversation between Dr. Jackson and Morton I did not hear, as I was not all the time in the room with them. But I felt sure, from the conversation I had heard, that he came to the laboratory without any idea of using ether, or anything else which would destroy sensibility to pain; that he knew nothing about its properties; that the effect which ether would produce was communicated to him by Dr. Jackson; and that he was induced to try it only by the repeated assurances of Dr. Jackson that it would produce insensibility, and could be administered with safety. The next day after the above conversation, Morton came into the office, and told Dr. Jackson that the ether had worked nicely; that the patient suffered no pain.

"During the time that I was in Dr. Jackson's laboratory, I never heard him express any doubt about the effect which ether would produce in causing insensibility to pain, but have heard him say that it ought to be administered with care and by persons acquainted with the nature of it.

"JAMES MCINTYRE."

"UNITED STATES OF AMERICA,
State of Massachusetts, County of Suffolk, City of Boston, } ss.

"On the first day of April, A. D. 1847, before me, came James McIntyre, and, being duly sworn, did depose and say as within written, and did sign the said within writing, as his deposition in and concerning the matter herein specified.

"In witness whereof, I have hereunto set my hand and seal of office, on this 1st day of April, A. D. 1847.

"JOHN P. BIGELOW,

"Notary Public."

In considering the comparative merit of the parties concerned in the application of this discovery, it is important to determine where the responsibility of the first experiment rested. If the experiment had been fatal, would the chemist and [24] physician, or the dentist, have been held accountable for the calamity? He who incurred the largest risk is entitled to the largest honors and reward of success.

The undersigned cannot better express his views upon this point than by quoting the language of a high medical authority, the late accomplished Dr. Gay:—"Mr. Morton, by acting under the authority of an educated physician and man of high scientific reputation, was shielded from all responsibility but that assumed by him as Dr. Jackson's agent. There was no demand for that moral courage which some have ascribed to him. Let the object of Mr. Morton's visit to Dr. Jackson be remembered, when the peculiar properties of sulphuric ether were first made known to him. His purpose was to deceive a patient in a dental operation, by acting on the imagination.† Dr. Jackson dissuaded him from it, and brought forward a long-cherished idea of his own, which he

* There can be no hesitation, it is believed, in any candid mind in deciding that the whole responsibility was Morton's. Dr. Jackson's famous French decision ascribes all the "boldness not to say audacity" to Morton—and the abstract thought to Jackson and Morton

See pages 400, 401, that Jackson would not allow his name to be connected with it.

† Here it is described as a "long cherished idea," elsewhere as a perfect verification in 1842.

had previously communicated to several persons,—his plan for the prevention of pain in surgical operations. He supposed that he might safely entrust to Mr. Morton the few and simple directions necessary for carrying the plan into effect, without his personal superintendence. In obeying these directions, Mr. Morton assumed only the responsibility of the nurse who administers a new and bold prescription of a physician.

Will any ingenuity be able to show how, in what form, and to what extent Dr. J. would have been responsible if the first patient at the hospital had been killed by the inhalation? We should then have heard that Dr. J. only said (as Mr. Chandler testifies,) “why don’t you try ether?”

“The responsibility of the operation rested with Dr. Jackson, as much as if he had personally administered the ether. The maxim, ‘*Qui facit per alium facit per se*,’ is strictly applicable in this case. Dr. Jackson has not, by his mere absence during the execution of his directions, forfeited any portion of the credit that would otherwise have been his due.”

If the person to whom Morton first administered the ether had been killed by it, there cannot be a doubt that the fatal result would have been attributed to Dr. Jackson’s prescription or directions. In case of a judicial investigation Barnes and McIntyre would have been called to prove that Morton administered the ether in pursuance of the instructions, and under the directions of Dr. Jackson, and upon his medical and scientific responsibility. In that case there can be but little doubt that Morton would have pleaded his entire ignorance both of medicine and chemistry, and would have justified himself by declaring that he merely followed the directions of a physician and chemist, upon whom alone the moral and legal responsibility should rest.

More than two months after the 30th of September, 1846, when Dr. Jackson communicated his discovery to Morton, the latter, his partners and agents, finding that the claims to the discovery on the ground of verification could not be sustained, for the first time set up a new claim, namely, that Morton had been for several months making experiments with ether. Granting all that Morton pretends upon this point, it amounts simply to this, that he was seeking for the discovery. Nobody alleges that he had found out anything before Dr. Jackson’s communication to him. The undersigned, however, believes all Mr. Morton’s allegations, respecting his previous experiments with ether, are wholly unfounded. Whoever impartially considers the evidence in this case, must form the opinion entertained in France upon this point.*

The first thing to be considered in the inquiry as to the truth of Morton’s allegations, is the high improbability that a man of extreme ignorance upon chemical or medical subjects, should have taken the very first steps towards making this discovery. The undersigned has no doubt of his total ignorance in relation to sulphuric ether, as shown in his inquiries of Barnes and McIntyre; as he was unable to answer questions relative to the composition of sulphuric ether, addressed to him personally, by the undersigned, since this subject has been before this committee of “the opinion entertained in France.”

tee. Dr. Gay thus speaks of his want of medical knowledge: "Mr. Barnes testifies that some time after the earliest experiments with ether, Mr. Morton showed him an apparatus for administering it, with no provision for the admission of air; and although told by Mr. Barnes that the admission of the air was indispensable, he gave proof, as late as December last, that he was not aware of the danger of too great an exclusion of it. At that time Dr. N. C. Keep, to whom we are much indebted for his valuable experiments and observations upon the best mode of using the ether, found it difficult to induce him to permit the air to pass freely through his apparatus."

Mr. Morton's own conduct and admissions, in the earlier period of this controversy, prove that he could not have experimented with sulphuric ether, or have suspected the existence of its anæsthetic properties, previously to the 30th of September. Mr. Eddy, Morton's professional adviser and co-partner in the patent, admits that Morton never informed him in relation to his experiments with ether. Yet Mr. Eddy declares that he advised Morton that he could not take out an exclusive patent for the discovery, because, to use Mr. Eddy's own words, "Dr. Jackson had suggested to him the propriety of experimenting with ether." Mr. Morton, although urging his objections to Dr. Jackson's having any share in the patent, made no allusion to his alleged previous experiments. It is not to be conceived that he would not have communicated all his claims, and particularly this, upon which he now almost exclusively rests, to his partner and legal adviser.

Mr. Morton's unqualified admissions to many of his assistants and agents, from the 1st of October, 1846, till February, 1847, prove his later statements untrue, as to previous experiments, and show conclusively that he was indebted to Dr. Jackson for his first knowledge of the anæsthetic properties of sulphuric ether, and for instructions how to apply it. Extracts from depositions proving these admissions are here presented. All the witnesses are men of mature age, and none of them have been discredited.

Says D. P. Wilson, of Boston:

See pages
105-'6-'7.

"Respecting the authorship of the discovery, I do not feel the least embarrassment or doubt, for my opinion has been wholly founded upon the narrative and declarations of Mr. Morton, in which, uniformly and without reserve, he ascribed its authorship to Dr. Jackson, never speaking of himself otherwise than as the first and fortunate person to whom Dr. Jackson had communicated it."

"I here speak of the time which intervened between the 11th day of November, A. D. 1846, or thereabouts, and the month of February then next ensuing, when Morton *first* claimed the discovery to be his own.*

"On the aforesaid 11th of November, I concluded a contract with Mr. Morton to become an assistant in his office. During this month I had conversations with Morton, in which he expressly stated that 'he was indebted to Dr. Jackson for the idea of the

This is a question of credibility fully considered by the Maj. Rep.

* Yet see his letter to Wells, and his immediate application for a patent; and see R. H. Eddy's testimony as to the introduction of Jackson's name.

This is un-true and is abundantly disproved by all the facts in evidence.

new application of ether, and had received instructions from him how to apply it.'"

Said Morton to Wilson, in concluding an account of the interview of the 30th of September, with Dr. Jackson:

[26] "Dr. Jackson directed me to apply the vapor of pure sulphuric ether with a handkerchief, or folded cloth, which would render the patient perfectly insensible, when I could extract her teeth without her knowing it. I seized upon the new idea, and immediately commenced my first experiments with the ether."

This stands against half a dozen credible witnesses, of whom Metcalf and Wightman were enough, if alone.

"This narrative, received from Morton's own lips, was confirmed by statements and expressions made by him, and by the assistants and others connected with the office, from day to day."

Says Alvah Blaisdell, of Boston:

See p. 113.

"At that time—on or about the last of September or the first of October—I had a conversation with Mr. Morton, to the following effect: I asked him how he succeeded in the application of ether. He replied, 'most satisfactorily.' I then asked him how he had dared to use an agent so powerful. He told me that he had received the most positive assurance from Dr. C. T. Jackson that it was perfectly safe. I remarked, 'then you have consulted Dr. Jackson.' He replied in the affirmative, and stated that the idea of employing sulphuric ether was first suggested to him by Dr. Jackson. I asked him thereupon if it was Dr. Jackson who made the discovery. Mr. Morton at once answered 'that he did, and that Dr. Jackson had communicated it to him, with instructions as to the proper mode of applying the ether; and that having acted in accordance with his advice, his (Morton's) practice had been successful, the result in every way answering to Dr. Jackson's predictions.'

"I met Mr. Morton frequently afterwards, and conversed with him upon the subject of ether. He uniformly made the same declarations, awarding the discovery to Dr. Jackson."

Says J. A. Robinson, of Salem:

"From Morton's conversation, I came to the conclusion that Dr. Jackson was the discoverer of the new application of ether. I remember asking Morton, 'how he could sell a right to the new agent, *Dr. Jackson having discovered it*. He replied distinctly, and in substance, 'that he had purchased of Dr. Jackson the exclusive right to the discovery, and patented it.' Morton unreservedly admitted that there was some one *behind himself* connected with the discovery *as its originator*, and that that person was Dr. Charles T. Jackson."

Says Nathan B. Chamberlain, of Boston :

"I am certain that this [interview] was several days after the first of October, of the year 1846. Mr. Morton, by his conversation at that time, gave me every reason to believe that some one other than himself was the discoverer of the 'preparation.' He said distinctly, that it was the suggestion of another, and, from Mr. Morton's manner of speaking of Dr. Jackson in connection with the 'preparation,' as he did quite frequently during the interview, no doubt was left on my mind that Dr. Jackson was the discoverer."

Says Allen Clark, of New York :

"During the whole interview [December, 1846,] Dr. Morton never claimed to have discovered the new use of ether himself, but left a full and decided impression on my mind [27] that Dr. Charles T. Jackson, of Boston, was its sole discoverer, and that he (Dr. Jackson) had first communicated it to him. See p. 112.

"I have since been greatly surprised that Dr. Morton should assume to have discovered etherization ; since from his own declarations, and the representations of his agents, I had drawn an entirely different conclusion."

Says Horace J. Payne, of Troy, New York :

"During this interview, [January 2,] Dr. Morton stated repeatedly and emphatically, that Dr. Charles T. Jackson, of Boston, was the sole discoverer of the new agent for producing insensibility to pain, and that Dr. Jackson had communicated it to him. Furthermore, that all the knowledge which he possessed in relation to its properties and its application, had come to him from Dr. Jackson, and that he never had any idea of applying sulphuric ether, or that sulphuric ether could be applied, for the aforesaid purposes, until Dr. Jackson suggested it to him, and gave him full instructions. See pages 110, 112.

Says Daniel S. Blake, of Boston :

"On the 21st day of December, 1846, I was employed by Dr. W. T. G. Morton as his agent to sell patent rights of the 'letheon;' and in pursuance of my duty as his agent, I travelled through parts of New York, New Jersey, Connecticut and Pennsylvania, and sold rights to different persons. See p. 109.

"The first time I had any conversation with Dr. Morton upon the subject of the discovery of the application of sulphuric ether,

to the relief of pain attending surgical operations, was when the discovery had been lately made known, viz: in the fall of 1846. It was, I remember, on the day that the operation in surgery was performed at the Bromfield House, in which sulphuric ether was used. I asked Dr. Morton of the origin of the discovery, and he then told me that Dr. Charles T. Jackson had made the discovery, and had communicated it to him a short time previous, and that he first applied it under Dr. Jackson's directions.

"Dr. W. T. G. Morton always said, and gave me to understand in all my interviews with him, (and I was his agent in selling patent rights for the use of the 'letheon,' or sulphuric ether, for about two months,) that Dr. Charles T. Jackson was the original discoverer of the application of sulphuric ether to the relief of pain attending surgical operations; that he (Morton) had, in the autumn of 1846, first used sulphuric ether, and then had used it and applied it under the instructions and directions of Dr. Jackson."

The only direct evidence which has been produced to support Morton's claim to previous experiments, is that furnished by the affidavits of his brother-in-law, Francis Whitman, William P. Leavitt, and Thomas Spear, three boys in his office, and Grenville G. Hayden, a partner in dentistry. The affidavits of these witnesses were taken in a secret room* in Morton's office, on the same day, D. P. Wilson having been ordered out for this purpose. If the testimony of these witnesses is proved to be false, no consideration is to be given to the very indirect and indefinite statements of Messrs. Wightman and Metcalf.

One of these witnesses (Spear) confessed to Messrs. Lord [28] and Palmer that he might have been wrong as to his dates.

The falsehood of his former testimony is now conclusively established by his admissions to Mr. Calvin Angier, a highly respectable merchant of Boston.

This important testimony of Mr. Angier is now published for the first time.

This is not so. If the testimony of all other witnesses but Wightman and Metcalf were stricken out of the case, these two whose credibility is admitted, and whose dates are fixed beyond probability of error, carry back Dr. Morton's experiments with sulphuric ether to the summer previous to Dr. Jackson's alleged communication to him.

"COMMONWEALTH OF MASSACHUSETTS, } ss.
Suffolk,

CITY OF BOSTON, December 19, A. D., 1851.

"I, Calvin Angier, of said Boston, in said Suffolk county, merchant, do, on oath, depose and say, that I have known Thomas R. Spear, junior, from his infancy, and that I am well acquainted with the father and mother of said Thomas R. Spear, junior, and that I have been in the habit of visiting Mr. Spear, senior, and that I have intimately known Thomas R. Spear, junior; that I have had numerous conversations with Thomas R. Spear, junior, on the subject of the ether discovery, since its publication to the world, and that he (said Thomas R. Spear, junior,) has uniformly stated to me, that he knew that the ether discovery originated

See pages 218, 219.

* This is false. See Burbank, p. 435.

with Dr. Charles T. Jackson, and that he knew that W. T. G. Morton obtained his first knowledge of this discovery of etherization from Dr. Jackson, and that Mr. Morton had told him (Thomas R. Spear, junior,) that he had learned from Dr. Jackson that the inhalation of the vapor of ether would prevent any sensation of pain in surgical operations; that said Thomas R. Spear, junior, declared to me that he did not breathe ether vapor until after Morton told him, that the said Morton had obtained his knowledge of it from Dr. Jackson, and that Dr. Jackson had assured him of the safety of inhaling it. I think that the said Spear also stated that he himself had first called on Dr. Jackson to assure himself of the safety of the process, before he (said Spear) had dared to inhale it. I do further depose and say, that the said Thomas R. Spear, junior, has repeatedly said to me that the first knowledge of the inhalation of the vapor of sulphuric ether that Morton had, he obtained from Dr. Jackson; and that the said Morton had frequently so stated to him, the said Thomas R. Spear, junior, and that said Morton, in his early use of the said ether in his dental operations, always attributed his first knowledge of the discovery to Dr. Jackson; and further I do depose and say, that said Thomas R. Spear, junior, only attributed to said Morton, and all that he attributed to him (the said Morton) was the use of the ether after Dr. Jackson's prescription, and that said Morton deserved credit for its early administration, but that said Morton was not the discoverer nor the originator of the discovery; and I do further add, and under oath state, that said Thomas R. Spear, junior, told me that he certainly should not have inhaled the ether if he had not first had it directly from the authority of Dr. Jackson, that it would be safe for him to inhale it.

“(Signed,) CALVIN ANGIER.”

“COMMONWEALTH OF MASSACHUSETTS, } ss.
Suffolk,

“CITY OF BOSTON, December 19, 1851.

“Then personally appeared the above named Calvin Angier, a party well known to me, and made solemn oath to the truth of the above affidavit, to him by me carefully read, by him in my presence subscribed.

“(Signed,) ABRAHAM JACKSON, JR.,
“Justice of the Peace.”

See the
examinat'n
and cross-
examinat'n
of Leavett,
before the
U. S. Com-
missioner
in Boston,
fully estab-
lishing the
facts stated
by Spear in
his deposition.
Spear
himself is
understood
to be in Cal-
ifornia.

The following is the affidavit of Spear, and is introduced to show how completely he has contradicted him- [29] self by his admission to Angier. It must be borne in mind that the three other witnesses all refer in facts and dates sworn to by Spear, and since contradicted by him. Whitman says that soon after July, Morton sent William and Thomas out to hire a man to come in and have an experiment tried upon him.

Leavitt refers to the same circumstances, and describes the circumstances of the first inhalation by Spear, without fixing the date. Hayden says that Morton, in August, 1846, tried to induce three young men in the office to take the gas.

“BOSTON, *March* 25, 1847.

“I, Thomas R. Spear, jr., of Boston, in the State of Massachusetts, depose and say :

“That, about the first of August, 1846, at request of Dr. Morton, I inhaled a portion of ether, which William P. Leavitt brought from Brewer, Stevens & Co's, in a demijohn, in Dr. Morton's office. The rest of the young men in the office were afraid to take it; but, having taken what I supposed to be the same before at the Lexington Academy, I did not hesitate to take it when I learned what it was.

“About a week after the ether was purchased of Brewer, Stevens & Co., Dr. Morton was expecting some persons at his office to witness an experiment, and he then offered me a sum of money if I would be present and inhale the ether. I when home and consulted my parents, and they advised me not to go. I have often heard Dr. M. say, that when he had completed his invention for extracting teeth without pain, he should be satisfied.

“Ever after Dr. Hayden came into the office, Dr. Morton seemed wholly absorbed in making this discovery, and had a number of bottles, an India-rubber bag, &c., &c., with which he prosecuted his experiments in the little room adjoining the front office, where he frequently locked himself in.

“Dr. Morton offered me five dollars if I would get some one to come into the office, and to have an experiment tried upon him of having a tooth extracted while under the operation of gas. I went, accordingly, down to the wharves, in company with Wm. P. Leavitt, in order to get some one for this purpose, but did not get any one to have the experiment tried upon.

“THOMAS R. SPEAR, Jr.”

See pages 218, 219. It is very justly remarked by Doctors Lord and Jones, in their minority report, as follows :

“This (Spear's) confession, under the circumstances, is alone sufficient to decide the whole of this part of the testimony, even if there were not abundant inherent proof of its utter worthlessness. All four of these witnesses were together in the office of Morton. Their affidavits were prepared together. They were all in the same interest. They all profess to know and to testify to the same thing. If the testimony of one is confessed to be false in the only essential particular, namely, the date, that of the others is false likewise.

See p. 435.

"But the falsehood of this vital part of the testimony in favor of Morton's pretensions to prior experiments, does not rest upon the confession of Spear alone. This confession is corroborated by the positive oaths of John E. Hunt, George H. Hayden and Don Pedro Wilson.

"John E. Hunt, an assistant in the office of Morton in November, 1846, swears that Morton told him that he (Morton), at that time, namely, November, 1846, had never inhaled the vapor of sulphuric ether, and that Spear assured him, a [30] few days after his entrance into the office, on an occasion of inspiring the ether, that it was the first time that he (Spear) had ever inhaled it. (See Appendix.)

"George H. Hayden, of Calais, Maine, (see Appendix B,) swears that Spear told him, some time in the month of November, 1846, that the day before was the *first* time he had ever inspired the vapor of ether.

"Don Pedro Wilson, an assistant in Morton's office, says (See Appendix,) that the *first* time he knew of Spear inhaling the ether was about the middle of November, 1846, which corresponds with the statements of the other witnesses.

"It should be borne in mind, in this connection, that the depositions of Spear, Whitman, Leavitt and Hayden, were taken a short time *after* Morton found it for his interest to set up pretensions to the original discovery, and it appears in evidence that they were never heard, previous to that time, to claim the discovery for Morton.

"There is nothing left but the testimony of Theodore Metcalf and Joseph M. Wightman to sustain the pretensions of Morton to experiments for ascertaining the anæsthetic power of sulphuric ether, prior to this interview with Dr. Jackson on the 30th of September."

Upon this the minority of the former committee remark :

"The statement of Mr. Metcalf seems to be too vague to possess much weight in view of so great a mass of conflicting testimony.

"All that is said by this witness, in relation to the conversation between himself and Mr. Morton about the nature and effects of sulphuric ether, at the store of Burnett, may be easily explained without supposing that Morton was engaged, as he alleges he was, in any experiments to test the efficacy of this agent in the subjugation of pain.

"The very small vial, said to be an ounce vial, alleged by Mr. Metcalf to have been in the hands of Morton on that occasion, even supposing him not to have mistaken sulphuric for chloric ether, might have been procured for use as an anodyne in his family, or for trial on the nerves of teeth, and might very naturally

Vague?
See his late
examinat'n
(p.222) and
cross exam-
ination
before U.
S. Commis-
sioner in
Boston, and
see his origi-
nal state-
ments and
deposit'ns.
Nothing
can be
clearer,
more con-
sistent, or
more con-
vincing.

have led to the remarks and inquiries, which are narrated by Metcalf as having taken place, as well as to tales of school-boy experiments of its inhalation, &c., but it is certainly very improbable that so small a vial was procured for the purpose of experimenting upon its effects by inspiration.

See his
examinat'n
and cross-
examinat'n
before U.
S. Commis-
sioner at
Boston, his
original leaf
from his
day-book
annexed,
(p. 232) fix-
ing the date
positively.

"The testimony of Mr. Wightman is more important, and unless there is, on his part, some extraordinary confusion in the dates of interviews with Morton, his statements are brought into direct antagonism to a very formidable array of testimony, produced by Dr. Jackson, to show the entire ignorance of Morton of the efficacy of sulphuric ether to remove the sensation of pain. "The affidavit of Mr. Chamberlain, a philosophical instrument maker, of as high respectability as Wightman, discloses the fact that Mr. Chamberlain, some time in the *summer* of 1846, sent Morton to Mr. Wightman for 'India-rubber bags,' which were designed to be attached to a blow-pipe, in Morton's office, for some uses connected with dentistry; and also the fact that he (Chamberlain) was consulted by Morton in regard to the gasses proper to be used in these bags; and that he saw nothing of Morton after this interview, until some time in the month of [31] October following, when he (Morton) further consulted with him in regard to an 'ether inhaler,' &c.

"Now Mr. Wightman seems, in his statement, to connect these India-rubber bags, which are described by Mr. Chamberlain as being designed for a blow-pipe in the *summer* of 1846, with the inspiration of ether and the 'ether inhaler,' respecting which Mr. Chamberlain swears he was consulted (and probably Mr. Wightman was also) by Morton in the month of October, which was *after* the interviews wherein Dr. Jackson imparted to Morton all his knowledge in regard to ether."

The Hon.
member no
doubt is sa-
tisfied, but
Mr. Wight-
man's cha-
racter is un-
impeacha-
ble, and his
book fixes
the date by
contempo-
raneous en-
try.

The undersigned is satisfied, after carefully examining all the testimony bearing upon the point, that the interview of Morton with Mr. Wightman, at which the conversation respecting sulphuric ether took place, occurred after the 30th of September, and after Morton had derived from Dr. Jackson the information respecting the properties of ether. Morton, in his Memoir, causes it to be distinctly understood, that he proceeded to Dr. Jackson's office on the same day that he had the interview with Wightman. He says, moreover, that on that day Dr. Jackson gave him "a flask with a glass tube inserted in it." Mr. McIntyre says in his deposition: "I was in the laboratory of Dr. Charles T. Jackson on the 30th day of September, A. D. 1846, on which day Mr. W. T. G. Morton called to procure an India-rubber bag, for the purpose declared in my deposition of April 1st, A. D. 1847. Mr. Morton did not, to my knowledge, ask for or take from the laboratory a glass tube and flask of any description whatever, which I should certainly have known if he had. A few days after the said 30th of September, on the second or third day of October, Mr.

Morton did call and take from the laboratory the above apparatus." Mr. George O. Barnes also testifies, "that Mr. W. T. G. Morton did not, on the 30th day of September, take from the laboratory of Dr. Charles T. Jackson a glass tube or flask, or any apparatus whatever for the inhalation of sulphuric ether. I was in the laboratory during the whole time that Mr. Morton remained, and heard the conversation between Dr. Jackson and himself. He did call, three days after, to procure such apparatus, and Dr. Jackson then gave him a glass flask and tube, with instructions for their use." These depositions leave no doubt that Mr. Wightman was mistaken in the date he has given to the interview with Morton.

"Unless, therefore, the recollections of Mr. Wightman are bewildered by confounding the occurrences of two conversations with Morton at different times, his testimony, though not exactly conflicting with that of Mr. Chamberlain, is certainly unsustained by any other reliable evidence of Morton's early experiments, and is in vital conflict with the whole current of proof solemnly attested by a large number of Morton's former agents and assistants."

Finally, the undersigned believes that the statements of Morton, and the testimony of witnesses who have been within his control, are entitled to no credit, because there is conclusive evidence that Morton is capable of giving and manufacturing false testimony. His own acts in relation to this controversy completely discredit him as a witness.*

It is known that a former committee of Congress had this subject under consideration. A report was presented by Mr. Edwards, in behalf of three of the committee, in favor of Mr. Morton's claims. Two of the committee reported adversely to Morton, giving the whole credit of the discovery to Dr. Jackson. No action upon the subject was ever had by Congress. The reports of the committee, in fact, were never called for. The subject was not even presented in the Senate; yet Morton published the following advertisement in the Boston Atlas of April [32] 14th, 1849:

"A CARD.

"The subscriber, having returned from Washington, begs leave to give notice to his friends and patients, (*Congress having decided the ether controversy in his favor*), that he is now able to devote his attention to the various operations in dental surgery, particularly to the administration of ether.

"Persons contemplating having artificial teeth inserted are assured that nothing can surpass the excellence of his operations in this department.

"W. T. G. MORTON, M. D."

This is an assertion shielded by congressional privilege. If made elsewhere it would be pronounced a "false, scandalous and malicious libel" and so established by conviction. Such a passage might be expected from the advocate, but not from the judge, who had not a particle of evidence before him warranting or excusing such a wanton attack.

* Pray, at what period of the proceedings before the Committee was this introduced? Did any member of the Committee ever hear of it? Was not Mr. Stanly himself the first to object to any collateral inquiries bearing on character? and did not Dr. Morton challenge such inquiry if allowed to extend to Dr. Jackson.

No such letter was ever heard of before the Committee. Again, may it be asked, is this a report on the evidence before the committee.

Of this advertisement Hon. F. W. Lord, a member of the committee before referred to, in a letter of April 16th, 1849, addressed to Dr. Jackson, and examined by the undersigned, speaks in the following strong language: "Morton, too, has advertised that Congress has recognised him as the discoverer of etherization, &c. This is quite characteristic of the unscrupulousness of the charlatan. How any honorable man can allow his name to be associated with the schemes of this fellow, after the public announcement of such downright and deliberate falsehood, is a mystery to me."

"The truth is, (and Morton knows it), that Congress has not acted at all upon the subject, nor decided anything. Three members (of the House of Representatives), out of two hundred and twenty-six, have adopted a report conceding to Morton the chief merit of the discovery, and two of the same body have denied to him all claim, and the House ordered, as is usual on all such occasions, the two reports to be printed. This is all. There has been no action of any kind."

This statement of Morton could not have originated in a mistake or a misapprehension. It was a bold assertion, deliberately published with the intention to deceive the public, and to increase his practice in dentistry. This is alone sufficient to throw suspicion upon any allegation made by Morton.

Can Mr. Stanley ever have read this report? Did he not move himself to exclude all inquiry as to character as wholly impertinent? and was it not so ruled, Dr. Morton not asking it?

The question as to Morton's character is made by the report a most pertinent one in this issue. It might have been one most proper to consider, even if the report of the majority had not made it necessary, as an act of simple justice to Dr. Jackson, to publish the evidence which has been presented to discredit Morton as a witness.

The majority report declares that "the committee have no reason to doubt the entire truth and accuracy of Morton's statement of experiment upon himself, although he cannot verify it by direct evidence." The majority report constantly refers to matters as established facts, which are proved only by Morton's own statement. He is admitted as a witness in the case, and no doubt is expressed as to the truth of the statements made by him. Dr. Jackson remonstrated before the committee against any weight being given to Morton's statements. He declared that he was a man of infamous character, and therefore wholly unworthy of credit. Dr. Jackson, by his counsel, offered to the committee evidence to prove Morton's infamous character, for the purpose of discrediting him as a witness. The committee declined to receive this evidence upon the grounds distinctly declared by them, that the committee should throw out of the question the statements of *both* parties. This the committee have not done with respect to Mr. Morton. The committee, moreover, reprove Dr. Jackson for having spoken of Morton with great bitterness, and declare that "they deem it but just to say that Dr. Jackson's charges are not only not supported, but are wholly inconsistent

On motion of Mr. Stanley.

with the current proofs in the case." Dr. Jackson thus stands charged as a false calumniator. The undersigned, [33] therefore, believing Dr. Jackson to be an honest and truthful man, cannot, without doing him gross injustice, withhold the evidence as to Morton's character. If there is anything harsh or severe in this procedure, it has been rendered necessary by the course of the majority.

It will be seen by the evidence presented by Dr. Jackson to the committee, published in the appendix, that his charges against Morton are proved to the fullest extent.

Throwing out of the case, as we must do, all Morton's own statements and those of the witnesses peculiarly within his control, and referring to the declarations made by him against his own interests, and to the testimony only of unimpeachable witnesses in relation to the introduction of this discovery, what are Morton's claims to the discovery of etherization?

1. Anterior to Dr. Jackson's communication to him, on September 30th, 1846, Morton had no idea that anæsthesia could be produced by the inhalation of any vapour of any kind. See his statements to Dr. Paine, Dr. Heald, and others.

2. He did not go to Dr. Jackson's laboratory for the purpose of procuring any means of producing any anæsthetic effect. See the statements of Barnes, McIntyre, and Dr. Jackson; also Morton's own declarations to Dr. Paine and others.

3. In the interview with Dr. Jackson, he made no allusion to ether before he had received Dr. Jackson's communications. See statements of Barnes and McIntyre. After Dr. Jackson had announced to him his discovery, he did not then claim that he had previously had the same idea. He did not say that he had experimented with ether, or show it at his office to any credible witness. Nor did he claim these previous researches in his communications with his patent solicitor.

4. Even after he had extracted the tooth without pain, there is no evidence that he had any idea that ether could be employed in surgical operations. He had no idea of going to the Massachusetts General Hospital until directed so to do by Dr. Jackson. See statements of Barnes and McIntyre and his own declarations.

5. He did not take any responsibility in the early operations with ether either at his own office or at the hospital. See deposition of Wilson, &c.

6. He was influenced by no philanthropic purpose in his efforts to introduce the use of ether, but acted purely as a mercantile speculator. See the following extract from his circular, dated November 25, 1846 :*

"I am now fully prepared to dispose of licenses to use my invention and apparatus in any part of the country upon the following general terms :

Dr. Morton instantly sued Dr. Jackson for libel, and this suit is now pending.

Contra.—See R. H. Dana, F. Dana, Hayden, Metcalf, Wightman, Leavett, Spear, Whitman, Gould.

Agreed that he did designedly withhold from Dr. Jackson his knowledge and his purpose, and with good reason.

(See the telegraph case.)

Contra.—Hayden p. 193.

Contra.—Dr. Warren and the other surgeons.

See Dr. Jackson's philanthropy—1st, \$500; 2d, 10 per cent. 3d, 25 per cent., &c.

* Note this date, and the language "*my invention*," and contrast it with p. 523, of this report.

TERMS FOR DENTISTS.

| | | | |
|-----------------------------------|-----------|-----|-----------------------|
| In cities of 150,000 inhabitants, | - | - | \$200 for five years. |
| " 50,000, and less than 150,000, | | 150 | " |
| " 40,000, | " 50,000, | 100 | " |
| " 30,000, | " 40,000, | 87 | " |
| " 20,000, | " 30,000, | 75 | " |
| " 10,000, | " 20,000, | 62 | " |
| " 5,000, | " 10,000, | 50 | " |

"Surgeons' licenses, for five years, 25 per cent. on all
[34] charges made for performing operations wherein the discovery is used, &c., &c. "W. T. G. MORTON."

Dr. Morton's debt to Dr. Jackson is simply for his opinion (confirming Dr. Morton's own) that the inhalation was safe, and that what he had verified in himself was not an exception. He had a right to consult books and chemists and to take suggestions and thereby would not have invalidated a patient in the strictest law. See Curtis on Patents, sec. 47-8.

What claim and merit has Morton in relation to this discovery, except that he confided implicitly in Dr. Jackson's chemical and medical knowledge, and promptly and closely followed his instructions? The undersigned, having now presented his own views as to the relative claims of the two principal contestants for the honor of this discovery, has still imposed upon him the task of correcting many of the errors both of fact and reasoning which appear in the report of the majority.

The undersigned deems it unnecessary for him to attempt to controvert the position of the majority report, enforced by so extraordinary an array of learned quotations, that this discovery of anæsthesia, for which the committee recommend so munificent a reward, is, after all, one which has been known in all ages. It is difficult, however, to reconcile this view of the majority with the statement of Dr. John C. Warren, quoted by them as the very highest medical authority. In a communication in the Boston Medical and Surgical Journal, this eminent surgeon says: "The discovery of a mode of preventing pain in surgical operations has been an object of strong desire among surgeons from an early period. In my surgical lectures I have almost annually alluded* to it, and stated the means which I have usually adopted for the attainment of this object. I have also freely declared, that, notwithstanding the use of very large doses of narcotic substances, this desideratum had never been satisfactorily obtained." The statements of the majority report, as to the state of knowledge current in the medical world in relation to the properties of sulphuric ether, before Dr. Jackson's experiments and opinions were known, demand a more careful consideration; for it is asserted that Dr. Jackson, previously to September 30, 1846, had discovered nothing that had not been known, or in print, in London, for some years. The only explanation which the undersigned can give for the extraordinary opinions expressed by the majority upon this point is, that they have not reflected that they have been considering the subject from the present stand-point, and that, in view of the

light which has been shed upon it within the last few years, they can form no correct idea of the obscurity which prevailed in early times.

The report speaks of the fact, "as well known to students of chemistry and medicine, that the vapor of sulphuric ether inhaled for a short time allayed pain." It says that "Mr. Morton's studies enabled him to know all that was then known of this agent, then familiarly known as a nepenthe." It says "that the stupifying effects of ether were well known to students and scientific men." Dr. Warren is quoted to show that the effect of the inhalation of ether in producing exhilaration and insensibility has been understood for many years. It is argued that Mr. Morton, in May, 1845, was in possession of all the knowledge which Dr. Jackson had upon this substance, as he then owned Pereira's *Materia Medica*, which contains the following sentence: "Vapor of ether is inhaled in spasmodic asthma, chronic catarrh, and dyspepsia, whooping cough, and to relieve the effects caused by the accidental inhalation of chlorine."

The undersigned conceives that the opinions and references above given convey a totally incorrect idea as to the former state of medical knowledge in relation to the properties of sulphuric ether. In the cases referred to in the work of Dr. Beddoes, ether was used as a diffusible stimulus, or at most as an anodyne, like opium. It was not known as a nepenthe, but as a stimulant like alcohol, and as a means of producing temporary drunkenness. Its [35] effects in producing stupor and unconsciousness were known, but these effects were regarded as exceedingly dangerous. Although its effects in producing unconsciousness were known, there is not the slightest evidence that the belief anywhere obtained that it produced *insensibility to pain*. Nothing in Pereira's work indicates that ether produces paralysis of the nerves of sensation. It was simply recommended for the same purposes as alcohol and other diffusible stimuli are used; alcohol having been formerly the usual remedy for suffocation by chlorine.

Yet Dr. Jackson maintains that the unconsciousness experienced by him involved the whole discovery.

There is nothing in Pereira's work which could have suggested the application of ether for anæsthetic purposes, while the work, if it ever had been read by Morton, would have distinctly warned him from using ether. This author speaks of its inhalation as dangerous, and quotes a case of dangerous stupor as a caution against its use. The majority report loses sight of the fact that the use of ether to such an extent as to produce unconsciousness, is spoken of in all the medical books as dangerous and occasionally fatal. Brande's *Journal* quotes a case of dangerous stupor of thirty hours' duration. Christison, in his work on *Poisons*, quotes the same case. Beck's *Medical Jurisprudence*, and Wood and Bache's *U. S. Medical Dispensary*, refer to cases of death produced on boys by inhalation of ether from a bladder, the accidents in this case having occurred from breathing ether without admixture of air. All these books contain cautions against breathing ether. These medical authorities were arrayed against

All this
may be
safely left
to be col-
lated with
the majori-
ty report.

Dr. Jackson in his early attempts to introduce ether as an anæsthetic agent, by a highly accomplished scientific man, the father of his student, Mr. Joseph Peabody. How can it be said that Dr. Jackson was simply posted up in the current medical knowledge upon this subject, when, in opposition to all medical authorities, he had declared and proved by his own bold experiment that the inhalation of ether, to such an extent as to produce insensibility, and to such an extent as never had been voluntarily and deliberately attempted before, was perfectly safe; when he had discovered, what was never before suspected, the conditions upon which that safety depends, and had inferred and declared the conviction, never before expressed by any other person, that the severest surgical operations could be performed without pain under its influence?

The views of the majority upon this point are in direct opposition to the opinion of the great surgeon Velpeau,* who, speaking in the French Academy upon the absurd claims which had been set up in France to a knowledge of the effects of ether, says "That which is new is the proposition of rendering patients upon whom we wish to operate wholly insensible to pain, by means of inspiration of ether. No person, to my knowledge, has ever made this proposition before Mr. Jackson, and no person before the dentist Morton had ever applied this means to a [36] diseased man." If such knowledge was possessed by the medical world in relation to anæsthetic agents, and particularly sulphuric ether, as the majority report labors to demonstrate, then no discovery has been made by either party, and the proposition to give a national reward to any claimant for the discovery is an outrage; then the acclamation which has resounded throughout the civilized world, and in every hospital and academy in Europe and America, that this is the greatest discovery of the age, has been an ignorant, an idle clamor!

An attempt is made by the majority to show that Dr. Jackson's acts and omissions, in the early stages of the public introduction of ether as an anæsthetic agent, render it improbable that he was the discoverer of etherization. They say, "From the 30th of September until the 2d day of January, during which time this

* The majority are particularly unfortunate in their reference to M. Velpeau, whose position in this matter they evidently misapprehend, for although M. Velpeau states in his *Medicine Operatoire*, Paris, 1839, tome 1, p. 32:

"To avoid pain in surgical operations is a chimera which it is not permitted to pursue at this day. Cutting-instrument and pain in operative medicine, are two words which never are presented, the one without the other, to the minds of patients, and it is necessary to admit the association."—

On this point M. Bouisson, in his work on anæsthetic agents, published in Paris, in 1850, says: "Happily these decrees (*points d'arrêt*), with which science was menaced, are not judgments without appeal, and M. Velpeau himself has been one of the first to recognize it. The rigorous determination of the anæsthetic properties of ether and of chloroform, the application which it was proposed to make in surgery, have come to prove that progress was possible, and that a new way has opened itself for the welfare of humanity."—p. 48.

discovery passed successfully the *experimentum crucis*, Dr. Morton was in full and sole undisputed possession. It was not until sometime after the trial of the operation in a capital case had been made and proved successful, that a claim was publicly set up by any one to the honor, or share in the honor, of the discovery." Again, the majority report says: "During all this time Dr. Morton alone claimed the discovery and conducted the experiments, &c., and not until all was complete and completely verified, not until some time after the operation of the 2d January, 1847, did any rival appear and publicly claim the discovery, or even a participation in it. Subsequently to this time claims were urged by Dr. Jackson and Wells." Nothing can be more at variance with the facts than these statements. Dr. Hitchcock's affidavit shows that Dr. Jackson communicated the discovery to him, and claimed the authorship, on the 3d of October, four days only after the communication to Morton. Dr. Hitchcock says, that "At this interview, Dr. Jackson related to him the circumstances under which he had communicated the discovery to Dr. W. T. G. Morton, and also gave his opinion relative to the safe and judicious demonstration of the new agent. Mr. Henry Sumner, in a letter to Dr. Jackson, of March 16, 1852, says: "I can from my own knowledge state that you did claim the discovery of etherization from the first public announcement of it. Indeed, your statements to me, *previous* to this announcement, were such as to induce in my mind the idea that you were over-sanguine in regard to the results of your discovery." Dr. Jackson's claims to the discovery were asserted daily and constantly, not by newspaper advertisements, it is true, but in every mode which was consistent with his personal dignity and self-respect.

At that time no formal public reclamation was necessary on Dr. Jackson's part. Dr. Jackson's claim to this discovery* was not denied. Morton and his associates then simply exaggerated the merit of his connection with the verification. On or about the middle of November, Dr. Jackson proceeded to take the most formal and deliberate course for asserting and proving his claim to this discovery, before a meeting of eminent scientific, legal and medical gentlemen, convened for that purpose at his laboratory. The occurrences at that meeting are thus described by Charles G. Loring, Esq., well known as one of the most eminent practitioners of law in Boston, in the following letter addressed to the undersigned:

BOSTON, March 26, 1852.

"Upon recurring to a memorandum-book kept by the clerks in my office, I find that an entry is there made of my attending a meeting at Dr. Jackson's house in November, 1846. I have a very distinct recollection of the event, although I should not otherwise have been able to designate the month or year. At that meeting were present Dr. John C. Warren, Dr. Ware, Dr. Gay, Mr. Joseph Peabody, Francis B. Hayes, Esq., and [37]

See Chandler's deposition as to the language of Dr. Jackson at the Warren Club, Oct. 27, pp. 258.

* See last note. On 27th Oct., at a meeting of the scientific men of Boston, it was said that Dr. Jackson knew something about the discovery, and he was questioned. See Dr. Warren's testimony, and Dr. J. M. Warren and others.

It is asserted positively that no such letter was in evidence before the committee.

This gentleman, the attorney of Dr. Jackson summed up all Dr. Jackson's rights in a proposition to Dr. Morton to allow him twenty-five per cent. on his proceeds of patent. See p. 101. myself, and I think that Dr. Hale was also present. I understood that it was called in pursuance of the advice which I had given in conference with Mr. Hayes, that, as the subject was one involving momentous consequences, and concerning which it was desirable to proceed advisedly and safely, and one which from its nature required the opinions of scientific gentlemen, it was expedient to have the matter submitted to their consideration in our presence, that we might advise with intelligence and confidence.

Very odd that he should have written the letter above referred to. "At the meeting Dr. Jackson made a full statement of his claims and of the circumstances which led to his alleged discovery, and of those which he represented as having taken place between him and Mr. Morton, and which induced him to make an experiment; but whether this statement was in writing or verbal, aided by written memoranda, I cannot tell; though my impression is that it was mainly in writing. He did exhibit evidence in support of his claims, all of which I cannot recall to mind. But I remember that Mr. Peabody made a very minute and convincing statement of circumstances that occurred while he was in Dr. Jackson's office, and that another young man made one of what took place when Mr. Morton came to bring an instrument to Dr. Jackson for inhaling, if my memory is faithful.

"I cannot state how far the other gentlemen were satisfied, but my own conviction was entire that Dr. Jackson was entitled, as between him and Mr. Morton, to the entire merit of the discovery, and no intimation of a contrary opinion was suggested at the meeting. I inferred that the other gentlemen were of the same opinion, if they did not express it at the time, and I have ever since acted confidently as the legal adviser of Dr. Jackson on that behalf whenever called upon by him."

Taking possession is an appropriate phrase. The undersigned has examined a paper, stated by Dr. Jackson to be a memorandum or brief of the communication made by him at this meeting. In this the discovery is claimed by Dr. Jackson to its full extent. What course could Dr. Jackson have pursued for taking a more formal and absolute possession of this discovery than the one above described? This letter of Mr. Loring shows how purely fanciful is the hypothesis of the majority report, that Dr. Jackson had not, prior to the operations of December 1st, "fully made up his mind to claim the discovery."

The open and sole possession was in Morton. No disposition to "take possession" was manifested till it was quite safe, and apparently profitable to do so. No such formal claim was necessary on Dr. Jackson's part; for, in the first communications made in relation to this discovery before any scientific bodies, Dr. Jackson was distinctly recognized as the author. The following letter of Hon. Edward Everett, submitted to the committee, but which has never been published (a letter to the same effect, presented to a former committee, having been "lost" by the chairman), shows conclusively how completely in error the majority are in asserting that Dr. Morton was in sole and undisputed possession of the discovery:

CAMBRIDGE, 21st October, 1851.

"Dr. C. T. JACKSON—Dear Sir: I readily comply with your request that I would furnish you with a statement of my impressions as to the discovery of etherization. I have always considered it to have been made by you. My first knowledge of this discovery was derived from an account of it given at a meeting of the American Academy of Arts and Sciences in Boston, on the 3d November, 1846, by Dr. Henry J. Bigelow, of that city. Dr. Bigelow, after describing the dental operations performed by Dr. Morton under the influence of the newly discovered 'compound,' (as it was then called,) stated that Dr. Morton [38] had derived his knowledge of the substance used from you.

No doubt Mr. Everett having heard Dr. Jackson's story and nothing *contra*, "always considered," &c. His recollection of Dr. Bigelow's lecture will be corrected by Dr. B.'s testimony before U. S. Commissioner, p. 319. *Int. quod vide.*

"The next day I had occasion to deliver an address at the opening of the Medical College; and in preparing that address for publication, I appended a note to it, from which I extract the following sentences:

"I am not sure that, since these remarks were delivered, a discovery has not been announced, which fully realizes the prediction of the text. I allude to the discovery of a method of producing a state of temporary insensibility to pain, by the inhalation of a prepared vapor. A full account of this discovery is given in a paper by Dr. Henry J. Bigelow, in the Boston Medical and Surgical Journal, for the 18th of November, 1846. Dr. Bigelow ascribes its first suggestion to Dr. Charles T. Jackson, and its application, under his advice, for the purpose of mitigating pain, to Dr. W. T. G. Morton, both of Boston."

"Such was the nature and the source of the impressions formed by me at that time, relative to the discovery of this wonderful anæsthetic agent. My address was published at the request of the medical class, and had, I suppose, the usual circulation. I believe it was the first non-professional publication in which etherization was alluded to. I am not aware that the manner in which I stated the facts of the discovery was objected to for several weeks; when a controversy relative to priority unhappily arose. In that controversy, I have neither taken nor wish to take any part. I have read several publications on both sides of the question; and several have appeared which I have not read. Nothing has come to my knowledge which shakes my original impressions as above stated.

"I remain, dear sir, with much regard,

"Very truly, yours,

"A true copy. (Signed), EDWARD EVERETT."

"Attest, Dr. A. D. W. MARTIN."

The majority have presented some purely original reasons for the assertion that Dr. Jackson, until the first capital operation, had no fixed confidence in the success of the new anæsthetic agent. The chief merit of originality is in the invention of the facts upon

which these reasons are founded; for it will appear that they exist simply in the imagination of the majority. The undersigned particularly refers to the comments of the majority upon the course which it is asserted he pursued in relation to two letters sent to M. E. de Beaumont, announcing the discovery. The report says, in substance, that Dr. Jackson, after he had nearly made up his mind to claim the discovery as his own, on the 13th of November, enclosed to De Beaumont a paper with directions to file it, but not to break the seal until he directed. "This paper," it is said, "its seal and custody, showed that Dr. Jackson knew how to save a secret and yet preserve the evidence of discovery; that he hastened to take a formal contingent possession of this discovery in Europe, before he witnessed, even as a spectator, a single operation under the influence of the new anæsthetic agent. It seems that he had not yet *fully* made up his mind to claim the discovery. He wanted further verification before he took the steps of announcing it as his own. He therefore directed the letter, making claim to the discovery, to be deposited, *sealed*, in the Academy, not to be opened until he should direct."

As to this, it is enough to ask what possible motive could Dr. J. have for his "sealed packet" except as suggested by the majority? His excuse (ante p. 20) is, that he "was constantly discovering new truths," &c. But now Dr. Morton had found time to give the world some benefit from this "new truth." Why should he seal his package if he had for years before fully arrived at the truth.

When and where? Let the members of the Committee be asked to say if there was any testimony? Again it is asked, is this the report of a minority or evidence?

"The success of the first of December removed all doubt. He therefore wrote the last letter on that date, directing M. E. de Beaumont to open the sealed packet."

Dr. Jackson's statement of the facts connected with this correspondence is as follows:—After writing his letter, dated [39] November 13, he took it to Robert H. Eddy, Morton's solicitor and co-partner. He declared to Eddy his intention of appealing to the French Academy of Sciences, and told him that he intended to send the letter which he then exhibited to E. de Beaumont, for that purpose. R. H. Eddy, and Caleb Eddy, the father of the former, begged Dr. Jackson not to send his letter, saying that they would "do what is right" towards him. By their solicitations, Dr. Jackson was induced to delay sending the letter for half a month, or until the next steamer sailed. Previously to the sailing of the steamer of the first of December, Dr. Jackson called again upon Mr. Eddy, and showed him three letters, which he intended to send to France by the steamer. Two addressed to Monsieur E. de Beaumont, one dated November 13, and the other dated December 1; the third addressed to the King of France, Louis Phillippe. Dr. Jackson states that Mr. Eddy and his father replied, "Send away as soon as you please; *we secured it by the last steamer*; you are too late; some one has been put to sleep in France, and in England too, by this time." Dr. Jackson immediately sent the two letters addressed to M. E. de Beaumont, *enclosed in one envelope* or seal, and desired M. E. de Beaumont to communicate their contents to the Academy of Sciences.

In one of the letters—that of 13th of November, 1846—he described his discovery, and requested that a commission should be

appointed to test it in France. He declared the discovery to be his own, and that he had induced a dentist in Boston to make use of it in preventing the pain incident to the extraction of teeth, and that he had requested Dr. Warren to test its power in preventing the pain of a capital operation at the Massachusetts General Hospital.

In the letter dated December 1st, he communicated to M. E. de Beaumont the fact that claims for a patent in France would be presented by R. H. Eddy, the co-partner of Morton, and he desired the Academy to take such action as would frustrate that scheme. In this letter he expressed no desire to secure a patent for himself, but desired that his rights, as a discoverer, should be protected in such manner as might be proper. He did not express a wish that the letters should be placed in a sealed packet. But M. Milne Edwards, one of the physiologists of the Academy, and a perpetual secretary, to whom M. E. de Beaumont showed Dr. Jackson's letters, erroneously supposing that Dr. Jackson desired to secure a patent in France, advised that both letters be placed in *paquet cachete*.

These statements of Dr. Jackson are confirmed by the following letter from M. Elie de Beaumont, which has been examined by the undersigned :

[Translation.]

"PARIS, January 3, 1847.

"MY DEAR SIR: I have received duly the letter which you had the goodness to do me the honor to write to me from Boston, the 1st of December last; also that of an older date, which was enclosed with it. I have read with lively interest the exposé of the important discovery with which you have enriched the art of healing; your *double letter* arrived on Sunday, the 20th December. My first movement was to communicate your discovery to the Academy of Sciences at its session of 21st December, and for that purpose I communicated it to one of the perpetual secretaries, M. Flourens, who is one of our most distinguished physiologists, and who comprehended at once its importance.

"By an accidental circumstance, the correspondence could not be read that day, which hindered the communication from being read. During the interval between this session and that of the Monday following, (28th December,) I carried your letter to be read to another of our physiologists of the Academy, M. Milne Edwards. This last made the observation that your object being to take out a patent for invention, it was necessary to omit reading the letter to the Academy, because, if it were read, your method would be printed in the *Comptes Rendus* and in the journals, and, according to the laws, so soon as a method is printed, it cannot become the subject of a patent;

'Induced!' Drs. Jackson, Barnes and McIntyre agree that Dr. Morton came to Dr. Jackson and that, whatever resulted from that interview, proceeded wholly from Morton.

But he stipulated before this that he should have, first 10 per cent. and then 25 per cent. on patents. See Eddy, p. 286.

This letter shews that Dr. J.'s object, as understood by Mr. De Beaumont, was a patent.

Contrast this with his pretensions herebefore expressed.

[40]

consequently, in order to preserve all your rights, with the dates of the arrival of your letters in Europe, I have enclosed this double letter in a sealed packet, (*paquet cachete*,) which I deposited with the Secretary of the Institute. This packet bears for subscription: *'Sealed packet relative to a Physiological and Medico-chirurgical discovery, sent by Dr. Jackson, of Boston, United States, and deposited in his name by M. Elie de Beaumont, 28th of December, 1846,'* and it has been mentioned in these terms in the session of 28th December, and it has also been noticed in the *Comptes Rendus* of that session, which will be published on the 3d of January. Your letter, enclosed in the packet, bears very distinctly the post-mark of the day of its arrival in Paris (20th December.) The depositing of similar packets is very frequent, both by members of the Academy and by other persons who wish to secure priority of a discovery previous to divulging it.

Two months after Morton's case; and six weeks after complete verificati'n.

"When you desire, we can ask the opening of the packet and the publication of its contents; but I ought to inform you that the Academy has nothing to do with the delivery of patents.

"Accept, I pray you, the assurance of my distinguished sentiments of esteem. Your affectionate servant and friend,

"(Signed) L. ELIE DE BEAUMONT.

"Paris, January 6, 1847.

"To Dr. C. T. JACKSON, Boston, Massachusetts."

Post-mark, January 7, 1847.

CONTRA:

The *commission* is, his repeated declarations that he would not let his name be connected with Morton's discovery; and the *omission* is, that he kept himself safely out of view, and only at length appeared as a spectator at the Broomfield house, when the discovery was already established in value.

What act or omission, on the part of Dr. Jackson, can be referred to, to prove the extraordinary statement of the majority—that he did not claim the discovery—except his refusal to trumpet forth his claims to the discovery, as his adversary had done, in advertisements in the papers? His course in this respect was such as suited the feelings of delicacy of a gentleman and a man of science. He expressly refused to give Morton a certificate, the next morning after the operation was performed by the latter, that the application of ether was safe. Not because he had any doubt of it—for he had assured Morton, in the most unequivocal manner, the day before, in the presence of two witnesses, of its safety, and the simple fact that Morton applied to him for the certificate of safety, shows that this application was founded upon Dr. Jackson's previous assurances of safety—but for the obvious, and most natural reason, that he did not wish to figure in Morton's quack advertisements.

How different from the notions of the majority upon this matter are the following sentiments, uttered by a distinguished peer of France, in a country where charlatanry and ignorant pretension rarely find sympathy and support.

In a discussion which took place in the Chamber of Peers, at the sitting of June 30, upon an article prohibiting medical adver-

tisements, M. le Compté Beugnot remarked as follows: "It is alleged, that, by the article under discussion, important discoveries, such as that of vaccination, would be prevented from being made known. I do not know what occurred at the [41] epoch when vaccination was discovered; but this I well know, that, for all the great discoveries of which we have been the witnesses in our own times, their authors have not had recourse to any of those means of publishing which we wish to proscribe. I ask if the illustrious Laennec has employed newspaper notices and advertisements to spread and make known his great discovery of auscultation? *I ask, also, if M. Jackson, who has just immortalized his name by the discovery of etherization, has employed these means to spread and introduce among us the discovery which he has made?* If Dr. Civiale, for lithotritry, if M. Pelletier, for the discovery of sulphate of quinine, have employed newspaper notices and advertisements in the public journals, and all those other means which we wish to proscribe? No, no! They have not had recourse to these means, which are resorted to only by charlatans."

The passage in this French count's speech is of no authority, if uttered. It establishes no fact whatever; and nothing short of abject subserviency to a foreign title could give it any consequence. But again, how does this, which was not in evidence, find its way into its 'REPORT'?"

The majority drew inferences unfavorable to Dr. Jackson's claims from his unfortunate connection with Mr. Morton in a patent for the application of this discovery. Dr. Gay, in his statement, thus remarks upon this transaction:—

"An impression unfavorable to Dr. Jackson's just claims has arisen in some minds, in consequence of his signing a petition for letters patent, in which Mr. Morton is represented as a joint discoverer with him. It is well known to Dr. Jackson's friends, that he always regarded the position of one engaged in scientific pursuits as a profession—as an elevated one; and deemed it a sort of impropriety to procure letters patent for the practical application of a scientific discovery. He himself never would have procured one merely for his own pecuniary benefit, in a case so important to the interests of humanity.

"The facts are these; Mr. Morton applied to a solicitor of patents to take one out for himself. The opinion of the solicitor was, that the patent laws would permit Mr. Morton to take out a patent on account of the part he had in the new application; and he further stated to Dr. Jackson that Mr. Morton would assuredly take out one in his own name, and he urgently advised him to unite with Mr. Morton in applying for a patent, to be issued in Mr. Morton's name, in order that his own rights to the discovery might be recognized in the first paper relating to the new application of either filed at the Patent Office. He observed, if Mr. Morton should take out a patent himself, and thus procure a kind of recognition at the Patent Office of his having been the discoverer, he might afterwards refer to this recognition in proof of it. The solicitor remarked to Dr. Jackson, that, should he take out the

As to this, see the sworn evidence of Mr. Eddy, the patent solicitor, p. 397.

patent with Mr. Morton, he might make over to him his own share of it, and that he would not then be a partner with him in holding it. As Dr. Jackson had great confidence in the solicitor, both as a friend and in his professional capacity, he, after long hesitation, consented to the plan proposed. There is no doubt whatever in the minds of Dr. Jackson's friends, that he consented to it for the sake of preventing Mr. Morton from holding a legal instrument in his possession, with his own name alone in it as a discoverer."

This is an infamous libel on a most respectable gentleman, who has been examined under oath. Dr. Jackson's own statement in regard to this transaction, in his letter to Baron Humboldt, although resting solely upon his own word, bears strong evidence of probability. He says: "Finding that I was in great danger of losing the credit of my discovery, I was foolish enough to listen to the advice of the patent solicitor, Eddy, whom I did not at that time suspect of being interested with Morton in his attempt to rob me of my discovery; and by his pretended friendly advice I allowed my name, under the following protest, to be used in procuring letters patent.

This document I found was not the one that Mr. Eddy [42] actually sent to the Patent Office, and that discovery led to an investigation proving that Mr. Eddy was a co-partner with Morton.*

"The protest dictated by me, and written in my presence by Mr. Eddy, was as follows :

" 'Dr. Jackson is extremely unwilling to take out a patent for anything applicable to the relief of human suffering; but, in order to secure the honor of this discovery, and to conform to the laws of his country in transmitting his right to another, consents,' &c.

"Under his usual power of attorney, Mr. Eddy altered this as follows, and without my knowing it at the time I signed it: 'Dr. Jackson, willing to benefit Mr. W. T. G. Morton, assigns to him his rights and interest, and requests the commissioner of patents to issue the patent in the name of W. T. G. Morton,' or words to that effect. Trusting that my injunctions had been faithfully carried out in the papers, I signed them without reading them, and that was the origin of the whole mystery of my name having been associated with that of Mr. Morton in this patent so improperly obtained."

See Eddy's evidence, p. 397.

The strong fact which confirms this statement, and furnishes a motive for the conduct of the patent solicitor, otherwise inexplicable, is, that the records of the Patent Office show that Mr. Eddy had the interest in the patent of which Dr. Jackson speaks. [See Appendix.]

The undersigned believes that he has now established, in direct contradiction of the assertion of the majority, that Dr. Jackson's own conduct and bearing, in reference to this discovery and its

*See annexed copy of an assignment, from W. T. G. Morton to R. H. Eddy of one-fourth of his rights in a patent then about to be procured.

verification and presentation before the public, from the 30th of September, 1846, down to the time that it was fully established, prove that he *was*, and *did believe himself to be*, the discoverer. It is still necessary to controvert one position of Dr. Jackson's adversaries,—that he had not full faith in the efficiency of his discovery. This position rests solely upon the often quoted statement of Mr. Caleb Eddy. Mr. Eddy, after relating a conversation with Dr. Jackson, remarks: "I said to him, 'Dr. Jackson, did you know at such a time, that after a person had inhaled ether, his flesh could be cut with a knife without his experiencing any pain?' He replied, 'No; nor Morton either. He is a reckless man for using it as he has; the chance is that he will kill somebody yet.'"

He "believes himself to be the discoverer" of Morse's Telegraph; and, had he lived early enough, would no doubt have disputed steam with Fulton, and electricity with Franklin.

It must be remembered that Caleb Eddy is the father of the patent solicitor, who induced Dr. Jackson to enter into the patent, and who was a partner of Morton in the sale of patent licenses; that, at the time Mr. Caleb Eddy's letter was written, the prospect of vast fortunes to be realized by the sale of patent rights, had been destroyed by Dr. Jackson's course. The younger Eddy's conduct, in inveigling Dr. Jackson into the patent arrangement, had broken up all friendship which formerly existed between the Messrs. Eddy and Dr. Jackson. Whatever Mr. Eddy says is spoken under the influence of strong personal animosity. But little weight can, therefore, be given to the narrative of a conversation given by one whose prejudice would have led him to remember only what was against Dr. Jackson's interest. Moreover, it is impossible that Dr. Jackson could have made such admissions against his own rights, when he went to Eddy's house for the very purpose of remonstrating against Morton's being connected with the patent. That Dr. Jackson regarded Morton as a reckless man,—that he was afraid Morton would kill somebody on account of his recklessness in the *mode of administering* ether,—that he regretted that he had entrusted [43] the verification of his discovery to such a man,—is doubtless true; but that he had no doubt of the efficacy of this agent in the severest cases of surgical practice, and regarded it as perfectly safe, when properly administered, is proved by abundant testimony. Mr. Peabody says: "I returned to Dr. Jackson's laboratory about a week after he had communicated his discovery to Mr. Morton, and since that time have been constantly with him; and I can most positively state that not at any time has he shown the least want of confidence in the importance of his application; and not for a moment hid he undervalue it, nor has he ceased to assert his claims as the sole discoverer."

Mr. Caleb Eddy is not impeached, and is above all reproach.

The following letter of Mr. Henry Sumner, a respectable gentleman, never before published, is perfectly conclusive as to Dr. Jackson's faith in this application:

"BOSTON, April 10, 1849.

DEAR SIR: Calling at your office a day or two after you had communicated your discovery to Mr. Morton, of the use of sulphuric ether as an agent for destroying pain in the extraction of teeth, and some days before its application in surgical operations at the Massachusetts General Hospital, I met Mr. Morton there, who wished to ascertain from you some means of disguising the odor of the ether. I distinctly recollect hearing you, at the same interview, affirm, with great confidence and enthusiasm, that the *severest surgical operations* could be performed upon patients under the influence of that agent, without giving them the *slightest pain*. This, of course, struck me with surprise; but many days did not elapse before your most sanguine expectations were realized, and the world astonished with one of the most remarkable discoveries of the age. I trust you will ere long receive the award of merit due such distinguished service rendered to suffering humanity.

This is merely the same opinion which Morton had for months entertained

"I am, respectfully and sincerely, your friend,

"HENRY SUMNER.

"Dr. CHARLES T. JACKSON, Boston."

The only answer required to the letter of Mr. Edward Warren, published in the minority report in support of the position now controverted, is the following extract from the deposition of Mr. Wilson, given in May, 1842:

"Mr. Edward Warren, the author of a pamphlet supporting Morton's claims to the discovery, was directly interested in Morton's patent. There was a contract in writing between them, by the terms of which it was provided that Warren should receive ten per cent. of the proceeds of all sales under the patent. The original contract I copied myself, at Morton's request, at a time when a large sum of money was expected to be realized from the patent."

See the conclusive reviews in majority report.

The majority have attempted to discredit Dr. Jackson's statements of the incidents of his early experiments, by declaring that "each successive letter written by him, in relation to these experiments, states the case more strongly than the last preceding; and that the facts superadded in the latter letters are those which alone give novelty and importance to his experiments." This the undersigned conceives they have wholly failed to prove.

In order to make out their case, and to show that Dr. Jackson observed in his first experiments no more than had been stated as having occurred in Dr. Thornton's practice, they made him speak of a *catarrh* having been relieved by ether; when, in fact, Dr.

Jackson has in no case spoken of having suffered a *catarrh*,
[44] but a severe and painful inflammation of the throat caused by the action of chlorine.

There is not the slightest ground for the assertion that any important facts have been added since his earlier statements. In Dr. Jackson's letter to Mr. J. H. Abbot, of May 19th, describing his first experiments, he speaks of "a cessation of all pain, and

the loss of all feeling of external objects, a little while *before* and *after* the loss of entire consciousness." This was omitted in his very brief letter to Dr. Gay, of May 20th, 1847. That this was accidentally omitted, is proved by Dr. Gay's pamphlet, to which the letter is appended.

Dr. Gay says, "The history of this discovery has been *derived from Dr. Jackson himself*."

In recounting the experiments Dr. Gay says: Afterwards, still suffering from the chlorine, he continued the experiment to such an extent as to produce complete general insensibility. Full relief from the suffering was experienced *before* he became unconscious, and it continued for a short time *after* the insensibility had passed away." The fact is, Dr. Jackson's letter was not so full as his oral statements to that eminent physician had been. All that can be alleged in relation to these statements is that Dr. Jackson, like other men of quick intuition, may not always give a full statement and the exact order of his reasonings in arriving at his results; and, like La Place, may by some persons be thought to have jumped at conclusions, the steps of which he supposed all men of science would perceive. All that Dr. Jackson adds in his letter to Baron Von Humboldt, are the steps of his *reasoning*, which he has often been told by others he ought to explain. No *new facts* are alleged by him as to his experiments upon himself, but only a more minute and detailed analysis of them, and the philosophical explanation of his deductions. Whatever may have been the process of his reasoning, the grand fact remains, that he did form these deductions, and that solely in consequence of his having formed and promulgated those deductions, suffering humanity now rejoices in the precious boon of anæsthesia.

Qu. Was it likely that a carefully prepared letter should stop short of the full pretensions of the writer?

The majority refers to the report of the Massachusetts General Hospital as conclusively settling this question of discovery. They say: "It was one in every way proper to be tried and settled by intelligent men, a jury of the vicinage; and it was so tried by a most appropriate tribunal, the Trustees of the Massachusetts General Hospital, at which the first public exhibition of this pain-destroying power was made. The question of discovery was tried before these men, trustees of a scientific corporation, to whom Dr. Jackson was well known; and this board, composed of men whose names would do honor to any scientific institution, presently after the discovery, near the time and at the place where it occurred, gave, by a unanimous voice, its honor to Dr. Morton."

The undersigned, aware of the weight which had been given to the pretended investigation of these gentlemen,—none of them, it is true, men of science or medical knowledge, or possessing any fitness for such an investigation, but highly respectable merchants and financial men, and doubtless in every way worthy of the trust imposed upon them, that of taking care of the money affairs of the corporation,—addressed to each of the trustees a letter, of which the following is a copy:

See the examinations of the surgeons of that hospital.

No letter was sent to Mr. Bowditch.

* Had Mr. S. read the hospital report he would have seen that

Dr. J. recognised the arbitration of the committee, by obeying its summons to testify, and appearing before it.

(See hospital report, pp. 46, 47.)

Query. Had the report been favorable, would Dr. J. have denied the authority of the umpires?

† Report shows that there was an authorized committee, before which Dr. J. and co-unseller regularly testified. — (Hospital report pp. 46, 47.)

Query. In Congress, did every individual member "examine the claims or evidences" in the ether case, or the authorized committee?

"HOUSE OF REPRESENTATIVES,
Washington, April, 1852.

"SIR: Having learned that you were one of the Trustees [45] of the Massachusetts General Hospital in 1847-'8, I am desirous of obtaining from you some information which bears upon the ether controversy, now under consideration by a select committee in Congress.

"Will you allow me, therefore, request to your answers to the following questions?

"1st. Are you aware that the Trustees of the Massachusetts General Hospital were authorized by Dr. Jackson to sit as umpires in the controversy between him and W. T. G. Morton, as to the discovery of etherization?*

"Did you, as one of the trustees of the hospital, examine the statements or evidences in behalf of Dr. Jackson's claims to the discovery of etherization, and has he at any time appeared before you personally, or by counsel, to support his claims?†

"Are you aware that any such investigation has been made by the trustees of the hospital as to give a judicial character to their decision in relation to the ether controversy?‡

"Have you, or not, considered N. I. Bowditch, Esq., alone responsible for so much of the hospital reports of 1847, as relates to the ether controversy?§

"I am, very respectfully,

"Your obedient servant,

"EDWARD STANLY,

"Member of Select Committee on the ether question."

The answers of these gentlemen are given in the Appendix. It appears distinctly, from these answers, that the trustees of the hospital were never authorized by Dr. Jackson to sit as umpires in the controversy; that Dr. Jackson did not appear before them personally or by counsel; that no such examination was made by them as to give a judicial character to their decision in relation to the ether controversy; that the considered N. I. Bowditch, Esq., one of the trustees, alone responsible for so much of the hospital report of 1847, as related to the ether controversy. It appears, then, that this jury of the vicinage consisted of only one person, whose subsequent acts have stamped him as Morton's chief attorney and agent.

The undersigned deems it unnecessary to expose in detail the many inconsistencies and errors of his report, although it is pro-

† Mr. S. could have seen by hospital report, pp. 45, 46, and particularly p. 47, a distinct disavowal of any judicial power.

§ Query. How many members of the House are usually engaged in drawing up a single report? and which of the Hospital trustees has questioned the report of the chairman of their committee?

per to inquire whether any weight is to be given to his opinions and statements. *

* As the report of the majority of the committee attaches great importance to the report purporting to be that of the trustees of the Massachusetts General Hospital, and adopts its "conclusions;" and as the letters of all the other trustees leave Mr. Bowditch solely responsible for everything relating to the ether controversy contained in that report, a few of the many inconsistencies, contradictions, and absurdities into which he has fallen are subjoined, in order to show how far he possessed the impartiality, knowledge and judgment requisite for his self-assumed office of arbitrator, and to what degree of respect his "conclusions" are entitled.

The *sole grounds* on which Mr. Bowditch's Report claims the discovery for Mr. Morton, are his pretended "*seeking for the discovery*," and the acknowledged fact of his first administering ether to a patient in the operation of extracting a tooth. He adopts, as "in accordance with his views," the declaration of Dr. George Hayward, one of the surgeons of the hospital, that "Dr. Jackson first suggested the use of ether" in surgery; and the declaration of Dr. Jacob Bigelow, one of the physicians of the hospital, that "Dr. Jackson made partial experiments, and recommended, but did not make, decisive ones." He admits that Dr. Jackson devised and communicated to Mr. Morton the experiment performed by the latter, and gave him information and directions absolutely essential to its safety and success; that Dr. Jackson had experienced in his own person, and observed in Dr. W. F. Channing, anæsthetic effects of sulphuric ether; that he recommended to Mr. Joseph Peabody, in March, 1846, sulphuric ether to prevent the pain of the operation of extracting two teeth, and gave him full instructions as to the requisite purity of ether and the proper mode of using it, as he did in the September following to Mr. Morton;—and yet, after all these admissions, Mr. Bowditch declares to Mr. Morton, by the mere performance of the first painless extraction of a tooth from a patient under the influence of sulphuric ether, made the great discovery of etherization! His language is as follows: "He [Mr. Morton] certainly first administered it [sulphuric ether] to a patient; by so doing, he made the discovery." In other words, performing with the hands an experiment devised and committed to him for performance by another man, made him the author of one of the greatest discoveries ever made in the inductive sciences!

Sir Humphrey Davy having, as has been already stated, observed certain anæsthetic effects produced upon himself by nitrous oxide, suggested that it could "probably be used with advantage during surgical operations in which no great effusion of blood takes place." In conformity with this suggestion, nearly half a century after it had been published, and many years after the death of its author, Mr. Horace Wells, of Connecticut, successfully administered nitrous oxide, in several instances, to prevent pain in the extraction of teeth. Mr. Bowditch, in his Report, in direct contradiction to the principle involved in his decision in favor of Mr. Morton, decides that Mr. Wells's "claim, as a discoverer in this matter, must yield entirely to that of Sir Humphrey Davy." Thus, according to Mr. Bowditch, Mr. Wells and Mr. Morton performed each an experiment devised and suggested by another man; and the former acquired thereby no right of discovery, and the latter an exclusive right to one of the greatest discoveries of the age! Thus, likewise, Davy suggested the *probability*, more, that nitrous oxide might be used "with advantage" in slight surgical operations; and Dr. Jackson drew a *legitimate philosophical induction from facts* that sulphuric ether would certainly and safely annihilate pain of surgical operations;—and yet, according to Mr. Bowditch's Report, Davy becomes an exclusive discoverer, and Dr. Jackson no discoverer at all!

There is no intimation in Mr. Bowditch's Report that Sir Humphrey Davy's claims to discovery are impaired, though he *did not, as long as he lived*, urge the trial of nitrous oxide in a single dental or surgical operation; while Dr. Jackson, for his failure to cause, though, not his neglect to urge, a like trial for sulphuric ether *for less than five years*, is alleged to have "thought his opinion of little value," and to have believed in the power of the ether to prevent pain in *dental operations only*; and this, though he admits, in another part of his report, chief attorney and agent."

Mr. S. errs, on opposite page in stating that a copy of his letter was sent to every trustee, as none was received by Mr. Bowditch, whom it assailed. This circular, be it remembered, was written after the House committee had signed its report, and closed its examinations, neither did Mr. S. consult any other member in this supplementary inquiry. Other letters were sent abroad at the same unseasonable time, in the evident hope of confusing witnesses, or eliciting contradictory testimony, after the regular examination. "It appears, then, that this *post bellum auxilium* was gotten up by only one person, whose acts have stamped him as 'Jackson's'

- A book has been exhibited to the committee, entitled
- [46] "A History of the Massachusetts General Hospital, by N. I. Bowditch, *not published*. Boston, Printed by John Wilson & Son, 22 School-street, 1851." In this book
- [47] Mr. Bowditch has inserted a chapter on the ether controversy, which occupies 130 pages of the work. To use his own words, "The work contains nothing new except, perhaps, the award of the French Academy, and also a note showing the extent to which ether is used in the hospital." Mr. Bow-

that "his [Dr. Jackson's] observations and conclusions" had reference to "*surgical operations*."

Though the gross inconsistencies and contradictions contained in Mr. Bowditch's Report deprive *his reasonings and conclusions* of any claim to respect, *his admission of facts* are not unimportant; inasmuch as his violent bias against Dr. Jackson, and partisan advocacy of Mr. Morton's claims, makes it evident that those admissions must have been extorted from him by evidence too strong to be assailed in the community where the character of the witnesses was known.

Admission similar to those of Mr. Bowditch have been made by the only two physicians of Boston, who have published articles in the Boston Medical Journal against Dr. Jackson's claims to the discovery,—Dr. Jacob Bigelow, and his son, Dr. Henry J. Bigelow. The former of these gentlemen, in an article published in the aforesaid journal, says: "Dr. Jackson made partial experiments, and recommended, but did not make decisive ones." Also, at a meeting of physicians, at the close of the Medical School, March 1, 1847, the same gentleman called Dr. Jackson "the original suggester" of etherization. Hon. Edward Everett, in the letter contained in this Report, says, that a meeting of the American Academy of Arts and Sciences, held November 3, 1846, Dr. Henry J. Bigelow described the early dental operations performed by Mr. Morton on patients under the influence of ether, and that in that communication Dr. Bigelow stated, that "Dr. Morton had derived his knowledge of the substance used from Dr. Jackson."

"Further, in a printed note to an address delivered at the opening of the new Medical College, November 6, 1846, referring to the discovery of etherization, Mr. Everett says: "Dr. Bigelow ascribes its first suggestion to Dr. Charles T. Jackson, and its application under his advice, for the purpose of mitigating pain, to Dr. W. T. G. Morton." Thus Dr. H. J. Bigelow conceded to Dr. Jackson—before the controversy commenced, and when, never having had any communication with Dr. Jackson on the subject, he must have derived his information from Mr. Morton himself, whose early experiments he described—all the "knowledge" involved in the discovery. At a later period, as if discovery were the work, not of the head but of the hand, he sets forth, in the Boston Medical and Surgical Journal, the following strange declaration: "He who verifies the suggestion, is the true discoverer." The statement which he made at the aforesaid meeting of the American Academy, as testified to by Mr. Everett, shows that he means by *suggestion*, in this case, both the devising of the decisive experiment and the recommending of it to Mr. Morton; and by *verification*, the mere performance of the experiment committed to Mr. Morton by Dr. Jackson; that is, Mr. Morton's doing what he had been taught to do.

The admissions, in the city where the facts are best known, of Mr. Bowditch and the Messrs. Bigelow, include every thing that, according to the unanimous decision of mankind, in the case of Franklin's great discovery, is essential to render valid Dr. Jackson's claim to the discovery of etherization; and the denial by them of those claims rests on a dogma rejected by the whole scientific world, and expressly repudiated by Whewell in the words already quoted: "I do not concede that experiments of verification, devised and committed to another for performance, give the operator a right to claim the discovery as his own."

The majority of the committee concede the truth of this principle, and endeavor to evade its application to the ether controversy, not by disproving the fact admitted by the aforesaid gentlemen, but by arguing that those facts are "improbable," notwithstanding they are established both by the admission of Dr. Jackson's principal opponents, and by irrefragable evidence.

ditch, as a scholar and a historian, must have had before him the *Comptes Rendus* of the French Academy, where the whole award of the committee is published. He gives, however, as *the* award of the Academy, but a portion of the report, omitting wholly that which relates to Dr. Jackson's discovery. Even the part which he has given he has mistranslated in such a manner as to detract from Dr. Jackson's merit.

See the whole report, as its translation agrees with this in substance.

In the preface to his book he says: "The Academy, it will be seen, accord to Dr. Morton the idea, thought, or purpose of making this discovery, and to Dr. Jackson the observed fact (*le fait observé*) of the safety of the agent used, and attributes the final result equally to them both, regarding the mental pre-occupation or engrossment of the one, and the observations of the other, alike indispensable."

This statement is full of errors. The Academy does not accord to Morton the idea, thought, or purpose of making *this* discovery* namely, the applicability of sulphuric ether to prevent the pain of surgical operations. It does not accord to Dr. Jackson merely the observed fact (*le fait observé*) of the safety of the agent used. The report says expressly that "the fact observed by Dr. Jackson was, that individuals exposed during a certain time to the action of ethereal vapor, had been momentarily deprived of *all sensibility*; this is the physiological fact. M. Jackson verified it upon himself." The fact observed was not, as Mr. Bowditch would imply, a mere auxiliary one, but a fact containing within itself the whole scientific discovery. It was the important fact of anæsthesia by inhalation. The manner in which Mr. Bowditch has distorted this award will be seen from the following translation of an extract from the report upon the prize of Medicine and Surgery for the years 1847 and 1848; commissioners—MM. Velpeau, Rayer, Serres, Magendie, Dumeril, Andral, Flourens, Lallemand; Roux, chairman.—(*Comptes Rendus de l'Académie des Sciences*, 1850.)

What other idea had he in the experiments proven?

Dr. J. does not pretend to have observed the fact, except upon himself, when he was wholly unconscious, as if under influence of laudanum.

"You know, gentlemen—for this debate has already resounded in the bosom of the Academy—that two men, who inhabit the same city, (Boston,) have attached their names by two different titles to this important fact of anæsthesia by the inhalation of etheral vapors, and the application of this means to medical and surgical practice. One is M. Jackson, professor of chemistry; the other M. Morton, surgeon dentist. Thus, as happens only too often under similar circumstances, a discussion of priority has been raised between them. Nevertheless, the commission is bound to take a part with reference to the facts and events which have occurred at a distance from us. All the documents have passed under our eyes; we have made a most attentive and conscientious examination of them; and from this examination we have arrived at the conviction that there are in this discovery of etherization

* It does.

"Some individuals." [48]
Who? This indicates the folly of taking such an award as proof.

Here the "idea" is conceded to Morton: and the fact observed by Jackson is an effect upon imaginary individuals, whom he has never pretended to exist.

* See *Tassistro's translation*, p. 573.

Mr. S. "might have seen" other ideas and thoughts in the French report had he been equally conversant with the language as Mr. Tassistro, but his *ex parte* translations are singularly defective, considering the severity with which he sits in judgment on Mr. Bowditch.

two distinct things which were produced successively—one of which belongs to M. Jackson, the other to M. Morton. M. Jackson had remarked that *some individuals*, on account of having remained during a certain time exposed to the action of ethereal vapors, had been, for the time, deprived of all sensibility. This is the physiological fact. M. Jackson verified it upon himself. Later, M. Morton succeeded several times in performing, without pain, the extraction of teeth from certain persons who had been previously submitted to the inhalation of ethereal vapor. Moreover, he prevailed upon certain surgeons of the large hospitals of Boston to have recourse to the same means in the practice of large operations. Here is anæsthesia rendered useful—applied. The discovery has thereby been completed. MM. Jackson and Morton were necessary one to the other. Without the importunity,* the devotion to one idea, the courage, not to say audacity, of M. Morton, the observation made by M. Jackson might have remained a long time unapplied; and without the fact observed by M. Jackson, the idea of M. Morton might have been sterile and without effect.

"After, then, having maturely reflected, the commission has thought that there were two distinct parts to be recognised in this brilliant discovery of etherization, and that to each of the two, separately, ought to be accorded a particular prize. In consequence, it proposes to the Academy to decree a prize of two thousand five hundred francs to M. Jackson for his observations and his experiments upon the anæsthetic effects produced by the inhalation of ether. Another, of two thousand five hundred francs, likewise, to M. Morton, for having introduced this method into surgical practice after the indications of M. Jackson." Now, what was this idea (*pensée*) of Mr. Morton, which Mr. Bowditch, purely on his own authority, says was the purpose of making this discovery? Mr. Bowditch might have seen, in the same number of the *Comptes Rendus* in which the report of the commission is contained, a published lecture upon etherization by M. Velpeau, who is named at the head of the commission on ether. This lecture explains that this idea (*pensée*) of Morton was a notion not peculiar to himself, but common to men of his profession, that some way could be contrived for extracting teeth without pain: an idea which the mesmerizers have pretended they have realized—an idea which Dr. Warren says has long prevailed in the medical profession, and which the majority report says has obtained since the most remote antiquity.

M. Velpeau says: "It was reserved for the New World, and for the city of Boston, to give to that which all thought impossible, the force of an accomplished fact. Two men were, in some sort, associated for the demonstration of the fact. The one, M. Jackson, a chemist, a distinguished *savant*, having seen some students intoxicate themselves with ether, and become insensible, in the

laboratories of Cambridge, respired himself the vapor of ether, in order to cure himself of headache, or to calm the irritations of his chest, which he had contracted by breathing chlorine. His experiments and remarks led him to conclude that the vapor of ether could render man insensible to the action of exterior agents. The other, M. Morton, a simple dentist, tormented for some time with need of realizing the famous axiom of the men of his profession—the extracting teeth without pain—spoke of this to Dr. Jackson, whose student he had been. ‘Make your patients breathe ether,’ says the chemist—‘they will fall asleep, and you can do with them afterwards what you please.’ With this gleam of light, Mr. Morton puts himself at work, contrives or constructs apparatus, makes trials, and soon succeeds in extracting, without pain, the teeth of those who came to invoke the skill of his hand. Sure, then, of this fact, he addressed himself to the surgeons of the Massachusetts General Hospital, and proposed to them to apply his means to patients who were to be submitted to the action of cutting instruments. They hesitate a moment; they afterwards accept. Without being complete, the first experiment gave courage. At the second attempt, success left nothing to desire. The facts multiply themselves in a few days, and the question is answered almost as soon as put. No objection is longer possible, the most incredulous are obliged to yield to the evidence; they must believe their eyes; the solution of the grand problem is at last found.”*

The remarks of M. Velpeau, although according too large a share of merit to Morton, leave no doubt that, in the opinion of the commission, Morton was wholly indebted to Dr. Jackson for the idea that the application of the vapor of ether could render man insensible to the action of exterior agents.

Taking the report of the commission, and its explanation as given by M. Velpeau, there can be no doubt that Mr. Bowditch has ignorantly or wilfully misrepresented the opinions and judgment of the commission.

The undersigned appeals to all honorable scholars, whether any authority is to be given to the opinions or statements of one who, disclaiming all bias, and speaking *ex cathedra* as an impartial historian, has been so careless or ignorant as to publish, as the whole award of the French Academy, only an extract from the report of the commission, wholly omitting that portion which recognises Dr. Jackson’s discovery; who has been so reckless as to give his surmises as the solemn judgments of the Academy; and who has wilfully misrepresented that the award of the Academy accords to Dr. Jackson only the observation of the safety of the anæsthetic agent, and to Mr. Morton the purpose of making the discovery of anæsthesia by inhalation; who, having in his

Here the French limit Dr. Jackson to have flashed a ‘gleam of light’ in Morton and concede all the rest to Morton.

“The grand problem” was solved, viz: by Dr. Morton.

The report contains all that is pertinent. See the whole report.

*It should be observed that M. Velpeau was in correspondence with some of the surgeons of the Massachusetts General Hospital.

report, claimed for Mr. Morton the honor of the discovery, partly on the ground of his previous experiments with ether, calls the award—which rejects all Morton's claims to previous experiments, and declares that he applied ether in conformity with the “indications,” the pointing out of Dr. Jackson—an entire triumph of Dr. Morton over the exclusive claims of his opponent!

The undersigned fully agrees with the majority that this question of discovery is one in every way proper to be tried by a jury of the vicinage. It has been tried by such a jury, and here is their triumphant verdict :

“To the Senate and House of Representatives in Congress assembled :

See the
memorials
and exami-
nations
from Bos-
ton, here-
with.

“The undersigned, residents of Boston and its vicinity, respectfully represent that they have been familiar with the great discovery of the anæsthetic use of ether from its origin, and with the controversy following it. They now believe, and ever have believed, that Dr. Charles T. Jackson is its sole and veritable discoverer ; and that any merit on the part of W. T. G. Morton, the surgeons of the Massachusetts General Hospital, or of others, consists in taking his discovery, after he had communicated it to many persons, in many places, known to some of us to be of unimpeached and unimpeachable characters, and subjecting it to additional employment. We, therefore, strongly feel that any recognition of the comparatively insignificant connexion of others in bringing this great discovery into general use, on the part of your honorable bodies, without granting a proportionate award to its originator and discoverer, would work a wrong and injustice beyond parallel in the history of science.

“We therefore feel bound, earnestly and respectfully [50] fully, to remonstrate against the distribution of any national honors or rewards to any other person, which we believe to be due solely (so far as the great fact of discovery is considered) to Dr. Jackson ; for we feel an assurance, as strong as evidence derived from the testimony of others and our specific knowledge of Dr. Jackson's traits of character can give, that, had it not been for him, this great contribution to humanity would be still among the things yet hidden.

“And as in duty bound will ever pray.

“February 9, 1852.

Luther V. Bell, *Physician and Superintendent of the McLean Asylum for the Insane.*

C. H. Stedman, M. D., *Late Physician to the City Institutions, South Boston.*

Edward Reynolds, M. D., *Physician and Surgeon to the Eye and Ear Infirmary, and late Surgeon to the Massachusetts General Hospital.*

J. B. S. Jackson, M. D., *one of the Physicians of the Massachusetts General Hospital.*

Silas Durkee,
Ephraim Buck,
Woodbridge Strong,
William J. Walker,
Samuel Morill,
Horace Dupee, *one of the Physicians of the Lying-in Hospital.*

Henry Bartlett,
Franklin F. Patch,
E. J. Davenport,
Henry A. Ward,
John Flint,
Josiah F. Flagg,
Wm. P. Dexter,
W. S. Coffin,
E. Whitney Blake,
J. M. Phipps,
George F. Bigelow,
Joshua Tucker,
Henry A. Martin,
Charles M. Windship,
Joseph H. Streeter,
Horatio G. Morse,
J. W. Warren, Jr.
John B. Alley,
J. L. Williams,
Geo. W. Otis, Jr.,
George Russell,
P. E. Molloy,
James Hyndman,
Harvey E. Weston,
Abram Paige,
Daniel Harwood,
John Odin, jr.,
Charles W. Calkins,
Howard Sargent,
Horace Stacy,
S. Cabot, jr.,
Robert Capen,
Benjamin S. Codman,
S. A. Bemis, *Dentist.*

D. M. Parker,
E. T. Eastman,
S. S. Whipple,
E. C. Rolfe,
C. A. Walker, *Physician to the City Institutions.*

Wm. H. Thorndike,
Robert Green,
F. L. Chase,
J. B. Taylor,
Jona. W. Bemis,
Jacob Hayes,
Luther Johnson,
J. F. W. Lane,
Wm. W. Morland,
John Bacon, Jr.,
F. S. Ainsworth,
Nath. B. Shurtleff,
Buckminster Brown,
J. V. C. Smith, *late City Physician.*

W. G. Hanaford,
E. Palmer,
James Ayer,
Ira W. Tobie,
Fytche Edward Oliver,
Le Baron Russell,
A. A. Watson,
George H. Gay,
Geo. Stephen Jones,
John A. Tarbell,
R. W. Newell,
T. Fletcher Oakes,
Henry W. Williams,
Thomas B. Wales,
Geo. Hubbard,
G. C. Holbrook,
J. E. Herrick,
Alanson Abbé,
W. W. Codman,
John C. Hayden,
William F. Channing,

John Clough,
S. L. Abbott,
D. Humphrey Storer, *one of*
the physicians Mass. General Hospital.

J. Sydenham Flint,
Henry S. Lee,
Calvin Stevens,
David Osgood,
Elisha G. Tucker,
Moses W. Weld,
Henry James Martin,

M. C. Green,
E. D. G. Palmer,
D. M. B. Thaxter,
Jno. S. H. Fogg,
P. M. Crane,
Jas. J. Fales,
Dan'l. V. Folts,
Chas. J. Putnam,
Moses Clark,
Abraham R. Thompson,
Stephen Ball,
A. D. W. Martin.

"To the Senate and House of Representatives in Congress assembled :

"The undersigned, members of the Massachusetts Medical Society, resident in Boston and its vicinity, respectfully represent, that they are familiar with the principal facts connected with the great discovery of etherization, and its introduction into surgical practice; and they declare their full belief that Dr. Charles T. Jackson, of Boston, having inferred, from his experiments and observations, that sulphuric ether, free from alcohol and acids, has the power safely and effectually to destroy the pain of surgical operations, communicated that conclusion to various individuals, and in February, 1846, recommended to one of them, Joseph Peabody, a student in his laboratory, the use of sulphuric ether as an anæsthetic agent; and subsequently, on the 30th of September of the same year, to W. T. G. Morton, a dentist of Boston, giving him, at the same time, directions respecting the quality of the ether to be used and the proper mode of administering it, and assuring him of the safety, and assuming the responsibility, of the application.

"The undersigned further declare their belief that the merit, which they would by no means undervalue, of W. T. G. Morton and others, in relation to the discovery of etherization, consists entirely in their having practically verified it, and zealously labored to introduce it into surgical practice.

"The undersigned believing, therefore, that, in relation to the great discovery of etherization, Dr. Jackson was the *head*, and W. T. G. Morton the *hand*, respectfully and earnestly remonstrate against any grant, by your honorable bodies, of honors or money to the latter, not accompanied by the grant of a proportionate reward to the former, for the far higher agency he had in conferring the great boon of etherization upon the human race.

Morrill Wyman,
Benjamin D. Bartlett,
J. E. Stevens,
George Baker,
Wm. G. Wheeler,
Charles Chase,
A. B. Snow,
Herman B. Inches,
C. D. Cleaveland,
S. R. Philbrick,
Joseph C. Sanborne,
Henry Lyon,
Edwin Adams,
E. W. Gleason,
Jno. C. Dalton,
Henry A. Barrett,
Josiah Bartlett,
J. S. Calef,
Andrew Alexander,
Jonathan Ware,
James A. Merrill,
Charles F. Hoffendahl,

T. J. Parker,
Anson Hooker,
Benjamin Seabury,
A. L. Weymouth,
Alexander Poole,
William Ingalls, *physician and
surgeon U. S. Marine Hos-
pital, Chelsea, Mass.*
B. P. F. Randall,
G. C. Shattuck, *one of
the physicians of the [52]
Massachusetts Gen-
eral Hospital.*
Henry G. Clark, *one of the
surgeons of the Massachu-
setts General Hospital.*
E. A. S. Nichols,
J. S. Nichols,
Timothy R. Nute,
H. D. Train,
Charles F. Foster,
A. B. Malcolm."

As a suitable accompaniment to the preceding remonstrances, the undersigned presents the following letter, addressed to him by Dr. Luther V. Bell, Superintendent of the McLean Asylum for the Insane—a gentleman who, by the current testimony of the delegation in Congress from his State, is second in medical attainments and personal character to none in his profession :

"MCLEAN ASYLUM FOR THE INSANE,
Somerville, Mass., March 26th, 1852.

"SIR : Your letter of March 1st has this moment reached me from the post office, after a delay entirely unaccountable to me. I did write a letter in reply to Col. Wm. H. Bissell, M. C., Chairman, &c., in reply to a printed circular, addressed to me by him, requesting any information within my knowledge or experience in relation to the anæsthetic agents. OPINION, and not testimony, nor showi'g any testimony as its basis.

"I replied to him by mail, but kept no copy of my letter. Its contents are, however, distinct in my memory, certainly as to its general tenor.

"I said to him that I had no views or experience on the subject which were not common to the profession.

"I then observed that, although no opinion was solicited on the question of discovery, I could not, with my views of duty, forbear taking advantage of the present opportunity to express the entire conviction which I, familiar with the whole matter from

* The geo- its earliest announcement, had always had, that the credit of the
logy of discovery is due entirely to Dr. Jackson, and that the part which
N. Hamp- Mr. Morton, Dr. Hayward, Dr. Bigelow, junior, and the rest of
shire and the early experimenters played, consisted solely in pursuing the
Maine is at the course which he had marked out and tested. I further stated,
this day a course which he had marked out and tested. I further stated,
terra incog- that if it had not been for Dr. Jackson, this great discovery, in
nita; and my opinion, would be among the things that are yet unheard of.
there could I also stated, that one of the great stumbling-blocks in the minds
not be a of those who know nothing of the peculiar mental constitution of
more ac- certain men of ingenuity and science—the circumstance that Dr.
ceptable of J., if conscious of such a mighty discovery, did not at once make
ferring ren- a *bruit* about it—was perfectly explained in the minds of all of
dered to us, who intimately knew him and his modes of thinking and act-
science than a re- ing; we feel that what he did was precisely what *à priori* we
survey of should have expected him to do. Indeed, I have often spoken of
those States. If his discove- ries in his course, in the early days of this discovery, as exactly analo-
Maine were gous to his course of action in relation to certain valuable
so valuable, [53] discoveries of his, in his geological surveys of Maine and
why was New Hampshire.* I concluded by saying that opinions—I
the survey might have said if based on a vast number of little and almost in-
discon- communicable circumstances—are of value only as connected with
tinued? the sources from which they are derived; and I referred him as
to the value of any judgment originating from me, to the Massa-
chusetts delegation in your House, or to our Senators, as well as
to those from New Hampshire, to most of whom my position in
the profession and the community is not unknown.

"I have the honor to be,

"Very respectfully, yours,

"LUTHER V. BELL.

There is something of "trans-
parency" and "eccen-
tricity" in this letter.
"P. S.—So far as the personal character of the claimants for
the honor of this discovery may bear on the probabilities of their
claims, I think I ought to add my testimony to the, doubtless,
concurrent mass of opinion from this region, that if there be a
pure, upright, transparent man among us, it is Charles T. Jack-
son. He is not without his peculiarities of manner and eccen-
tricities of views, but for sterling truthfulness and integrity of
character, no man on my list of acquaintances stands higher.

"L. V. B."

As to the two reports of the hos-
pital, see majority re-
port and testimony of surgeons
Such are the testimonials from the "vicinage" in relation to
Dr. Jackson's rights to this discovery. No less decided and uni-
ted is public opinion in Europe in his favor. It is well known
that Dr. Jackson received, in honor of this discovery, from Louis
Napoleon, President of the French Republic, the cross of the Le-
gion of Honor,* and a gold medal,† struck expressly for this pur-

* PARIS, May 10, 1849.—You ask me in regard to the ether quarrel and Dr. Jackson. These are the answers: 1. In the first place, the *Grand Cross* of the

pose, from the King of Sweden, at the suggestion of Berzelius, the first chemist of the world. These honors, it has been falsely said, were paid to Dr. Jackson before Morton's claims were known. In April, 1850, Sir Charles Lyell, President of the Geological Society of London, writes Dr. Jackson as follows :

"MY DEAR SIR: Since you were so kind as to send me your pamphlet proving your claims to the ether discovery, I have been much occupied with family affairs, having lost both my father and mother, who died at an advanced age, each of them.

"I was really very glad to have so clear and unequivocal evidence to show to others of your claim to priority, for I and some of my friends had, in their correspondence with the United States, had such distinct statements to the contrary effect, that, although I suspended my own judgment, and did not take any part or offer any opinion, I was surprised to see how very unfounded were the rival pretensions.

"The discovery, leading, as it did, to chloroform, (which I believe many of your practitioners regard as a doubtful improvement by way of substitute,) I regard as one of the greatest ever made; and in nothing do I think the love of progress and the welcoming of new ideas has been more advantageously displayed, than in the extent to which Americans have made use of this method of alleviating human suffering, beyond the people of this country, where prejudice, and religious bigotry, and Rabbinical notions have most seriously impeded its adoption; most particularly in London, where the medical men have displayed a want of moral courage truly deplorable. * * * * *

"Believe me, most sincerely yours,
"CHARLES LYELL."

The undersigned has before him a work on anæsthesia, published at Vienna, in 1850, by Dr. Joseph Weiger, Imperial and Royal principal Dentist to the poor, Emeritus Professor of Surgery, Surgeon to the Courts of Justice, and to the Prisons of Vienna. The author has performed, himself, 21,000 operations with ether. He did 1,560 in the first five and a half months after the discovery was made known in Europe by Dr. Jackson. In the first fifty days he operated with ether 547 times.

Legion of Honor has *not* been conferred on Dr. J. There are two degrees; the lowest—that of Chevalier—was given to him. It is a very problematic honor; the manner in which it was distributed by Louis Philippe having made it a distinction to be without it. Recently it was offered to M. Richard, one of the mayors of Paris, who refused it on this ground.

The giving the Cross to Dr. Jackson was principally owing to the efforts of M. Eli de Beaumont, the distinguished geologist, and was just as much for what Dr. Jackson may have done as a geologist as for anything he may have had to do with ether.—*Letter of Mr. Sumner, brother of Senator Sumner, to Dr. George Hayward, of Boston.*

† The gold medal was given upon the same consideration.

Sir Chas. Lyell, like any other man, expresses his opinion on one side of the case, without any knowledge of facts, or any citation of facts, must yield to the testimony of the humblest witness who *knows a fact* not consistent with the *opinion*.

[54] All this is humiliating to Americans. Are we to shut our eyes to facts because of foreign OPINIONS not founded on facts?

His cases are of all kinds, from dental extractions to capital operations and child-birth. This work has been published since the award of the French Academy; and the author attributes the discovery exclusively to Dr. Jackson, though he is perfectly cognizant of Morton's pretensions and of his alleged services.

The author begins thus: "Through Jackson's wonderful discovery of the remarkable effects of ether vapor upon the human organism, a new era in operative surgery has indisputably set in. For centuries there was a fruitless endeavor, among surgeons of humane feelings, to discover some means of making the pain in necessarily bloody operations less painful, but without success in doing it.

This man does not pretend to any knowledge of the fact. Does Mr. Stanley found his reports on basis like this?

"The accidental breaking of a flask of ether (chlorine gas) in a chemical laboratory of the New World, procured for Dr. Jackson the fortune of being made famous by the discovery of the hitherto unknown powers of ether.

"For centuries sulphuric ether was known, and was applied by physicians in various diseases, as well internally as externally, without exciting a suspicion of its newly-discovered, as well as its highly beneficial effects."

Again he speaks of it "as the highly important and greatest discovery of our century. I say *the greatest* discovery, since we could realize our wishes, though more slowly, without steamboats or telegraphs; but what has been gained to suffering humanity by painless operations, *he* only can comprehend and appreciate, who is placed on his mournful bed for the purpose of undergoing a capital operation."

This is a marvellous fact, not in evidence. In Vienna the operation of etherization is called "JACKSONIZING;" "that is a new expression. People say Galvanizing, after the discovery of the physician, Galvani; so should this discovery be called Jacksonizing, after the gigantic discovery of Jackson."

"The people *will* give it *this* name, which is, probably, the only thanks he will receive for so beneficent a discovery." Again, Dr. Weiger says: "If the famous man (Dr. C. T. Jackson) comes to Vienna, there is a *feast-banquet in store* for him. Then must all those come together whose teeth have been extracted without pain, and many a tear of thanks will fall upon his hand from others who have been operated upon, which will make for him a chain of pearls, with which the whole world is linked to him as its great benefactor."*

Probably the Doctor has nothing else in store for him.

Mr. Morton has produced an impression in his favor, by the

* In consulting twenty-six works, which have been published by physicians and surgeons in different countries of Europe, between the years 1847 and 1852, it is found that not one of them accords to Mr. Morton any right to the discovery of anæsthesia; but, on the contrary, after examining the claims of the different aspirants to the honor of this discovery, they with great unanimity accord it to Dr. Charles T. Jackson. This is the result to which all men of science have arrived, where the evidence in the case has been impartially weighed. There are hundreds which give the right to Dr. Morton—but it was not imagined by him that this was EVIDENCE on which a committee would report, nor was any such thing suggested to the committee.

exhibition of an enormous gold medal, said to have been lately awarded to him by the French Academy, which has been shown as a final and special expression of the Academy, as to his claims to this discovery.† The effect produced by the exhibition of this medal, is displayed in two letters published in the report of the majority, one from the Chief of the Bureau of Medicine and Surgery, and the other from the Surgeon General of the United States Army. The former says, addressing Mr. Morton: "The medal of the first class, awarded to you by the Medical Institute of Paris, evinces the high estimation entertained in that centre of medical science and intelligence, of the services you have rendered to humanity." The latter says: "Permit me to congratulate you upon the flattering testimonial you have received from the National Institute of France." The committee, in their report, speaking of this medal, say: "Dr. Morton has, within a few days, received the expression of the Academy in the more acceptable form of their largest gold medal." They then proceed to describe it, distinctly conveying the impression that the award of this medal was a new and signal testimonial in Mr. Morton's favor. The undersigned does not deny that Mr. Morton did receive a medal from the Academy. That which he, in fact, received, was of the ordinary size—about that of a dollar. Mr. Morton has caused the genuine medal to be surrounded by a gold frame, upon which is engraved a wreath of oak leaves, the whole so ingeniously and artfully contrived, as to give the medal, with its setting, the appearance of an enormous medal, over four inches in diameter, in a single piece, of the value of four or five hundred dollars. Within a few days, the undersigned has seen in circulation, a printed book, purporting to be the report of the majority, circulated, of course, without the knowledge or sanction of the majority, as no report had been presented by them to Con-

† That the Institute of France did not regard Mr. Morton as the discoverer, but only as a propagator of the discovery, appears from the following extract translated from the *Comptes Rendus* of the Institute for May and June, 1852: "M. Jackson, who, in the public session the 4th of March, 1850, had obtained of the Academy a prize for his researches concerning the effects produced by the inhalation of ether, asks if M. Morton, who, in that session, had also obtained a prize for his labors on the application of the same therapeutic agent, has been considered as inventor, or simply as propagator of the discovery.

"The *procès-verbal* of the public session does not permit any doubt in that respect. The Academy, on the proposition of the commission on prizes of medicine and of surgery for the years 1847 and 1848, has decreed a prize of 2,500 francs to M. Jackson, for his observations and his experiments on the anæsthetic effects produced by the inhalation of ether; and another of 2,500 francs likewise to M. Morton, for having introduced that method in surgical practice, in conformity with the indications of M. Jackson (*d'après les indications de M. Jackson*)."
Comptes Rendus des Séances de l'Académie des Sciences, Tome xxxiv., No. 20 (17 Mai, 1852.)

In the *Comptes Rendus* for June 14th, there is a notice of a second letter which the Academy received from Dr. Jackson before their reply to his first had reached him. In the "*Table des Matières*" for that number of the proceedings, Mr. Morton is mentioned as "*arrogating to himself*" the discovery of etheri-
Whether this was the production of Dr. Jackson is not stated.

gress. In this book are two engravings, purporting to be facsimiles of the medal. The deception before referred to, is perpetuated and circulated in the engraving; for the setting is there represented as an integral portion of the medal, its diameter, as there delineated, being over four inches. Comment upon these facts is wholly unnecessary.

But what does this reception, by Dr. Morton, of "*the largest gold medal*" of the Academy signify? The value of this "new testimonial of the Academy" is shown by the following letter addressed to Dr. Jackson :

[Translation.]

"PARIS, May 17, 1852.

This letter, if genuine, as is to be presumed, was never in evidence before the committee, which had closed the case before it could have been received in the United States.

"MY DEAR SIR: I have received the two letters which you have done me the honor to write to me the 30th of March and the 7th of April.

"I wrote to you long since my personal opinion respecting the prize awarded to Mr. Morton. *In point of fact*, the Academy of Sciences decreed one of the Montyon prizes of 2,500 francs to you for the *discovery of etherization*, and it has decreed a prize of 2,500 francs to Mr. Morton for the application of this discovery to surgical operations.

"Now, all persons who receive a prize of the Academy of Sciences, can draw simply the sum which has been voted them, or they can draw a medal either of bronze, silver, or gold. This medal bears a head of Minerva, and the superscription of *Institute of France*. The cost of the medal is deducted from the sum paid. You have drawn simply the sum of 2,500 francs, as is usual; but, according to the information I have obtained from the Secretary to-day, Mr. Morton asked for a *Gold Medal*, the value of which is 300 francs, (\$60,) and he has received in money only 2,200 francs. In that Mr. Morton has but made use of a right which could not be contested; but the medal which he has obtained is the ordinary one of the Institute.

"It was not struck expressly for him. *You have the right to ask for one exactly like it*; only, in that case, you should receive but 2,200 francs, instead of 2,500 francs.

"Your devoted servant and friend,

"(Signed,) L. ELIE DE BEAUMONT."

The undersigned feels it due to the claims of Mr. Wells, to state, that he has not examined the evidence before the committee on his behalf with much care. The papers were referred to a member of the committee, whose views are probably incorporated in the report of the majority. But if all that Mr. Wells's friends urge, is susceptible of being proved, the undersigned is satisfied from the evidence that Dr. Jackson's discovery was made long

before Wells claimed that he knew anything of the power of ether in rendering the system insensible to pain under surgical operations.

In submitting the foregoing, the undersigned lays no claim to original views. The subject has been exhausted. It has been argued with much ability, and rather more warmth than was becoming by some of its advocates. He has only tried so to avail himself of the labors of others, as to present the truth fairly before the House. [Probably not.]

When the undersigned entered upon the investigation, he was inclined to the opinion that Mr. Morton was entitled to the credit of the discovery. The undersigned concurs in all that has been said, either by the able and accomplished Dr. Warren, by the majority of the committee, or by other persons, in favor of the inestimable value of this great discovery. Its advantages can hardly be exaggerated. He only desires that the head that conceived, and the science and learning that pointed the way, should be rewarded, as well as the hand that, following instructions, was instrumental in bringing this agent before the world. [No doubt]

He read all the arguments which Mr. Morton, with remarkable industry, pressed upon his attention; and, examining them with care, he was satisfied that injustice had been done to Dr. Jackson. These opinions were formed and expressed before the undersigned had ever seen Dr. Jackson, or heard anything in his behalf, except from the able argument of his counsel, John L. Hayes, Esq., of this city, to whose argument the undersigned is indebted for many suggestions embodied in this report. The undersigned has never had ten minutes' conversation with Dr. Jackson, who was in this city during the past spring for a few days, very properly abstaining from all personal solicitation of members to induce them, by partial representations, to regard his claims favorably. That is to say, when the argument for Dr. Jackson was concluded on the evidence, Mr. Stanley left Washington without hearing the reply.

EDW. STANLY.

The undersigned, a member of the select committee upon etherization, who was appointed in consequence of the [57] death of Mr. Rantoul, reports :

That, after considering the subject, and reading the evidence upon the part as well of Dr. Jackson as of Dr. Morton, he has arrived at the conclusion that Dr. Charles T. Jackson is the original discoverer of the application of purified sulphuric ether, by inhalation, as a means of preventing pain from surgical operations.

The undersigned does not desire to detract from any credit that may have been due to Dr. Morton for his action in applying the anæsthetic agent, and in bringing it more prominently before the public. (See note on next page.)

ALEXANDER EVANS.

NOTE.—The report was signed early in March by Messrs. Bissell, Sutherland, Fitch and Rantoul, four members out of the five that composed the committee, all of which were notified by the chairman that their labors were closed. The report was then ready for presentation when reports from select committees should be called for in the regular order of business of the House.

Some mornings after the death of Mr. Rantoul, (which occurred August 7th, after the report was completed), Mr. Stanly asked to have his place filled upon the committee, and the Speaker, not knowing that the committee had closed their labors, and there being none of the other members in the House, appointed Mr. Evans, who joined Mr. Stanly in his minority report, without even meeting or conversing with a member of the committee, except (it is supposed) Mr. Stanly.

LETTER FROM N. I. BOWDITCH, ESQ.

BOSTON, *April 16, 1852.*

SIR: Several of my late colleagues (trustees of the hospital in 1848,) have received circular letters from you, making certain inquiries. Though none was addressed to myself, I take the liberty of replying, as if I received one. It is the duty of the trustees annually, to appoint a committee—the chairman being the one on whom devolves the drawing up of the report. This committee is to examine the accounts, and make a review of all important occurrences of the past year, to be laid before the Corporation. I was appointed chairman, my colleague being Mr. Edwards. At the meeting at which we were appointed, it was suggested that the ether discovery (*the event of the year,*) would naturally come under our notice. With this informal intimation of the wishes of the board, I accordingly complied. At that time, Dr. Gay's pamphlet in assertion of Jackson's claims, and Mr. Warren's in support of Dr. Morton, were both before the public. I read them carefully. I personally saw Mr. Metcalf, and he gave the very important information contained in his letters and notes. I saw also, (as is mentioned in the report,) twenty-one other persons—devoting the leisure of weeks to obtaining what I conscientiously believed to be the facts in the case. I had never seen Dr. Morton. I had for years lived in the very next house to Dr. Jackson on terms of friendship and good will. My personal preferences would have been wholly in his favor. In making this investigation, I had assumed that Dr. Gay's pamphlet contained all he (Dr. Jackson) had to say. Thinking, however, that this might not be the case, before submitting the report to my colleague for examination, and before, indeed, it was wholly completed by myself, I addressed Dr. Jackson a note, asking him if he had any additional evidence. This I did in the name of the committee. I notified my colleague, but I think he was not present at any interviews. Dr. Jackson called to see me, and in accordance with his wishes, I made an appointment with Dr. Gay, which ended in an interview of three hours. Dr. Gay offered to prove that Dr. Morton was a man of previous bad character, and to exhibit evidence of transactions of his of a dozen years before in a remote part of the country. I told him that all this was irrelevant; that a man ought not to be deprived of the credit and honor of this discovery, *let his prior character be what it might.* The details of this interview, in other particulars, is stated in our published report. It is also reprinted in

a history of the hospital, a copy of which I had the honor of presenting to Mr. Bissell, the chairman of your committee, a short time since. The trustees there distinctly disavow "all judicial powers or functions." After my report was prepared, I left it with my colleague, with the pamphlets of Dr. Gay and Mr. Warren. He kept them two or three days, suggested certain verbal alterations—said that the conclusions arrived at were satisfactory to his mind, and appended his signature. The document was then read by me at a meeting of the trustees, and was specially submitted to every member of the board who was not present at that meeting. Its conclusions were agreed to by them all, and they all concurred in the subscription of the \$1,000 presented subsequently to Dr. Morton. I suppose they would all say that they consider me alone responsible for the preparation of the report, and that personally, they made no investigation of the subject; and they would probably all say, that they have seen no reason to doubt the accuracy of the conclusions there arrived at.

I have the honor to remain,

Yours, very respectfully,

N. I. BOWDITCH.

HON. EDWARD STANLEY,
Washington, D. C.

REPORT

UPON THE

PREMIUMS FOR MEDICINE AND SURGERY

OF

THE FRENCH ACADEMY OF SCIENCE,

FOR

1847--'48.

TRANSLATION

REPORT ON THE PRIZES AWARDED IN THE DEPARTMENT OF MEDICINE AND SURGERY FOR THE YEAR 1817 AND 1818

REPORT

GRIMMING FOR MEDICINE AND SURGERY

THE LONDON ACADEMY OF SCIENCE

1817-18

TRANSLATION.

REPORT ON THE PREMIUMS AWARDED IN THE DEPARTMENTS OF MEDICINE AND SURGERY, FOR THE YEARS 1847 AND 1848.

COMMISSIONERS — *Messrs. Velpeau, Rayer, Serres, Magendie, Dumeril, Andral, Flourens, Lallemand; Roux, reporter.*

The Commission, of which I am, on this occasion, the organ to the Academy, has already been in existence for two years. Composed as it is of Messrs. Dumeril, Flourens, Rayer, Magendie, Serres, Andral, Velpeau, Lallemand, and myself, it has retained its original character and been entirely free, therefore, to perform with zeal and without delay, in so far as it lay in its power, the duties of the mission which you had intrusted to it. But the same Commission which had been charged with the examination and appraisement of the works that had been sent and admitted in competition for 1847, was subsequently obliged to embrace in its sphere of action those that were sent and admitted in 1848. It is a double task we have had to perform, and the time has arrived for us to present you with the results of the same; it is, in some respects, a double report which we have to make to the Academy.

The special labors of the Commission have been yet more protracted and difficult than in all former competitions. A great number of its sittings have been devoted to the subject, independently of what each member has had to perform in private. How could it have been otherwise, when the examination and appraisement embraced works more or less extensive, on scientific subjects, amounting to more than fifty in number? But the Commission is willing at once to acknowledge that, after the satisfaction of having fulfilled its duties towards the Academy, a real pleasure was reserved for it,—it is that of having selected several works well worthy of the awards which we are about to propose to you.

One of these, however, predominates or excels the rest, and it is to this one that we will, in the first place, direct the attention of the Academy. The question is not about an extensive and complicated work, such as would have required immense labor, profound meditations, and renewed efforts of intelligence; it only relates to a fact of great importance brought to light—a thought fruitful of consequences and applications. This fact and this thought combined, bear the stamp of a genuine discovery,

which has seized upon and vividly impressed the public mind, and which, having started from the new world, very soon obtained the most universal renown. The whole human family was interested in it; its benefits have already been felt by thousands; future generations will profit by it, for it is the lot of man to be for ever exposed to all kinds of diseases, which are inevitably attended with pain; it is his nature to dread bodily suffering, to revolt at the idea that he will soon have to encounter the same, especially when he is obliged to submit to the ordeal voluntarily, and to desire to escape from the sense of pain with as much, and even more eagerness than he employs in seeking for pleasure. There is but little probability, in other respects, that medicine and surgery, notwithstanding all their efforts and all the improvements of which they are susceptible, will ever arrive at that point when their resources will be stripped of what is repulsive to us, and, more particularly, in regard to some of them, of what they have in themselves that is cruel and dangerous.

It is especially in surgical operations that this sad and repulsive feature prevails; and it is a glorious service rendered to science and to humanity to have brought to light a method which is nearly infallible, or which is at least generally successful for making man momentarily insensible to pain, to annihilate in him for a few minutes, or even for a longer period of time, once only, or successively at various intervals, the perception of external impressions, the consciousness of self, certainly, by attacking the principle of life, which, however, only occasions a momentary perturbation, after which all the functions reassume their natural sway. For if there are on record some cases of a fatal issue of anæsthesia thus artificially produced, it has been owing, sometimes, to the defectiveness in the mode of proceeding, at other times to inability or want of foresight on the part of the experimenters, or to the peculiarly unfortunate idiosyncrasy of the victim, one of those constitutional anomalies, which predispose the individual for the most unexpected and most improbable events, according to the known laws in the economy of men and animals; and let us hasten to add, that the well ascertained cases, too much to be lamented undoubtedly, of the fatal effects of anæsthetic agents in men, are, up to the present moment, infinitely small compared with the vast number of experiments that have been made. There is no exaggeration in saying, that during a period of little more than three years only, since the inhalations of ether or chloroform have been introduced in the practice of medicine and surgery, as an anæsthetic medium, one hundred thousand individuals, at least, must have been submitted to it, first in America, and by American surgeons, to whom belongs the merit of having taken the initiative, then in various parts of the world; and out of this number, there are not more than twelve or fifteen fatal cases to be deplored. Owing to the cir-

cumstances in which they have been placed, some of the members of your Commission, two of them especially, have had it in their power to pay a large tribute to science, in what concerns the use of anæsthetical mediums. Their experience alone already possesses something imposing. Since the close of 1846, (it was at that period that the first facts were observed and gathered, at Boston, in America, by Messrs. Jackson and Morton, and it was not long before the same were known in France) since that time, I say, Mr. Velpeau and myself have had occasion to resort, each of us in separate practice, to etherization, so called at first, then to chloroformization, five or six hundred times at least; one thousand, or twelve hundred individuals, or more perhaps, have been subjected to the process of anæsthesia by our hands or under our eyes, in order to undergo surgical operations, more or less important, and neither of us have as yet seen instantaneous death produced by anæsthesia: neither of us have as yet had the heart lacerated by the sight of such an occurrence; and we both doubt that anæsthesia, directed with prudence and method, has ever had a sinister influence upon the results of our operations; without daring to affirm the fact, and without being able to demonstrate that such has been the case, we would rather attribute to it a favorable influence.

The question of anæsthesia produced by the inhalation of ether or of chloroform, (and perhaps there will yet be discovered other anæsthetical agents, having the same power, and of a still more harmless character) this question, we repeat it, is, in the highest degree, interesting both to physiology, surgery, and medicine proper. It affects the latter department, which has already derived some benefits from anæsthetical appliances, in the cure of certain diseases, especially where pain is the principal symptom, by means of ether or of chloroform. Surgery has lost much of what was cruel in its modes of treatment; its proceedings are less frightful; it has no longer to struggle against the excessive pusillanimity of some individuals. Physiology having had to study the true character, and the action produced upon the central organs of the nervous system, by ether or by chloroform, its investigations, in which our honorable perpetual secretary, Mr. Flourens, has taken so great a part, have not been without benefit in the analysis of the functions of the brain. It is possible that new and important results are still in store for us. Physiology has, moreover, been the starting point of all that has been said, and all that has been done, in regard to ether and chloroform. Anæsthesia produced by the first of the above mentioned agents, and fortuitously observed, is the great physiological fact, from which have emanated so many and such valuable practical applications.

Considered in this triple point of view, the question of anæsthesia is destined to be the field of much labor; science, in fact,

possesses already several important works on the subject. Notwithstanding all the interest which belongs to these works, notwithstanding the information which is spread out in them, the matter is very far from being exhausted; and the moment has probably arrived, when it would be proper for the academy to take the initiative, for calling into existence one of those great works, which it can distinguish and reward in its own name, and in a manner worthy of itself. Anæsthesia considered by itself, and in view of its applications, whether as a therapeutical means, or as a medium for preventing pain in surgical operations, where is there a more fascinating subject for study, for clinical experiments and observations? How many doubts are yet left to be solved? How many important questions are connected with it, which are yet to be determined? Our task is not to enter into even a rapid examination of these questions. It is not for the Commission to draw out the programme of a scheme of prizes placed in competition; it only delivers its opinion into the hands of the Academy. The Commission has considered nothing but the original discovery; the generating fact, from which have sprung all those that are incessantly produced under our eyes, leaving the academy free to dispense, on some other occasions and under different circumstances, eulogies and rewards to such works, through which this discovery shall have been perfected. Perhaps, some of these will be due to Mr. Simpson, of Edinburgh, if the fact be confirmed, as it evidently appears, that chloroform is in reality preferable to ether, as an anæsthetical medium, acknowledging, however, that the first experiments upon animals with chloroform were made by Mr. Flourens. But the discovery itself has received the sanction of time and of experience. After the lapse of more than three years since it has been brought into light by science, and the world has been benefited by its results, the Academy should no longer delay in bestowing upon it its high approbation; it should proclaim and honor it, as one of the most brilliant scientific facts of our times, which is certainly to be comprised in the category of those that were contemplated by the generous philanthropy of M. de Montyon.

You are aware, gentlemen, for this discussion has already penetrated into the midst of the Academy, that two men, who inhabit the same city, (Boston) have affixed their names, but under different titles, to this important fact of anæsthesia by the inhalation of ethereal vapors, and the application of that medium to the practice of medicine and surgery. One is Mr. Jackson, Professor of Chemistry, the other Mr. Morton, a surgical dentist. As it happens but too often under similar circumstances, a question of priority has sprung up between them. In the meanwhile the Commission has been called upon to decide in a matter of facts and events that have transpired far from us; all the documents have been submitted to our inspection; the Commission has ex-

amined them in the most careful and conscientious manner; and this investigation has led to the conviction, on the part of said commissioners, that there is, in the discovery of etherization, two distinct things, which have grown out of it successively, one of which belongs to Mr. Jackson, the other to Mr. Morton. Mr. Jackson had observed that some persons, on being exposed for a certain period of time to the action of etherial vapors, were momentarily deprived of all sensibility. This is the physiological fact. Mr. Jackson established the fact by trying the experiment upon himself. Subsequently Mr. Morton succeeded several times in extracting a tooth from persons previously subjected to the inhalation of etherial vapor, without pain; moreover, he prevailed upon some surgeons connected with the large hospitals of Boston, to resort to the same medium in the performance of great operations. This is anæsthesia practically applied; the discovery is thereby completed; Mr. Jackson and Mr. Morton have been mutually necessary to each other; without the earnest solicitations, the engrossing idea, and the courage, not to say the audacity of the latter, the observation made by Mr. Jackson might have remained for a long time without application; and without the fact observed by Mr. Jackson, the idea of Mr. Morton might probably have remained fruitless and without effect.

After mature reflection upon the subject, therefore, the commissioners are of opinion that there are two distinct awards to be made in this splendid discovery of etherization, and that a particular prize should be granted to each one, separately. The Commission, therefore, proposes to the Academy, that a prize of 2,500 francs be awarded to Mr. Jackson for his observations and experiments on the anæsthetical effects produced by the inhalation of ether, and a similar prize of 2,500 francs to Mr. Morton for having introduced this method in the practice of surgery, after the indications of Mr. Jackson.

I hereby certify, that the foregoing translation, made by me, is literally correct, and may be relied upon in every respect.

L. FITZGERALD TASISTRO,

Translator to the Department of State.

January 17, 1853.

TESTIMONY OF
GEORGE HAYWARD, M. D.

I, George Hayward, of Boston, in the county of Suffolk, and Commonwealth of Massachusetts, being first sworn, depose and say, in answer to interrogatories by R. H. Dana, jr., esq., counsel for Dr. W. T. G. Morton.

1st. How long have you resided in Boston? Are you, and how long have you been, a surgeon in the Massachusetts General Hospital?

Ans. I have always resided in Boston, with the exception of an absence of three years in Europe. I am not now a surgeon of the Massachusetts General Hospital. I resigned about two years since, but I was for five and twenty years before that.

2d. Are you, and how long have you been, a member of the American Academy?

Ans. I was elected about thirty-five years ago, and am now a member.

3d. Were you, and how long, a professor, and of what, in Harvard University? Are you a member of the corporation? Are you President of the Massachusetts Medical Society?

Ans. I was Professor of Surgery in Harvard University for fifteen years. I resigned three years ago this spring. I am a member of the corporation of Harvard University. I am President of the Massachusetts Medical Society.

4th. How long and how intimately have you known Dr. Jackson? How as to Dr. Morton?

Ans. I have known Dr. Jackson ever since he was a student, some twenty years ago, but not intimately. I never knew or saw Dr. Morton till the 17th of October, 1846, the day of the second trial of the ether at the hospital.

5th. Please state all your personal knowledge of the first use of ether as an anæsthetic agent?

Ans. I was invited by Dr. Warren to meet him at the Hospital on the 16th day of October, 1846, he having at that time charge of the surgical department at the hospital. I was unable to attend. He then asked me to meet him on the 17th, the following day. I did so. He then told me that there were two patients on whom he intended to operate that day, who would inhale something, I forget what he called it, which would be administered by a Mr. Morton, a dentist; that it had been tried the day before, at the hospital, on a patient, with partial success. One of these patients on the 17th was a female, with a tumor on the upper part of the arm. The other patient did not come. I then saw Mr. Morton for the first time. He administered to the female some preparation, or something which put her in a state of apparently profound sleep. Dr. Warren asked me to do the operation. I did so. It lasted about seven minutes. The patient gave no

sign of consciousness, or suffering, and she assured me afterwards that she had none. I took charge of the surgical department of the hospital on the first of November following. No other patient had inhaled the ether from the 17th of October till this time. On the second of November, Dr. Warren asked me what I intended to do in relation to the use of this preparation of Mr. Morton. I told him that I did not intend to use it, unless I knew what it was, and we were all confident that it might be administered with safety. He agreed with me that this was the proper course.

On the 6th of November, Mr. Morton called at my house, and inquired if I was not going to remove the limb of a girl, above the knee, at the hospital, on the following day. I told him I was so. He then inquired what I thought about using his "compound," or "composition." He used one of those words. My reply was that I should not, unless he made known to all the surgeons of the hospital what the article was, and we were satisfied that it could be used with entire safety. He then told me he had no objection to stating what it was, and allowing me to make it known to my colleagues, but he wished that it should go no further at present, as he had, or was about to apply for a patent, and was in hopes of making something by it. He then told me what it was. I said, "I wish to have it in writing." To this he assented, and proposed to address me a note in the course of the day. I told him it had better be directed to Dr. Warren, as he was the senior surgeon of the hospital. This he agreed to do. I then added, that the operation would take place at 11 o'clock the next day, Saturday, November 7th; that there would be a consultation of the surgeons at 10 o'clock of that day, and that I would then make known to them what he had now communicated to me. I told him also, that he had better be there prepared to administer it, and that if we thought it safe, it would be used; otherwise, he would have an opportunity of seeing the operation done in the old way. On Saturday, November 7th, at 10 o'clock, the consultation was held. All the six surgeons were present. I stated to them what had been communicated to me by Dr. Morton on the preceding day, and Dr. Warren also had the letter which had been addressed to him by Mr. Morton, but whether it was read, I cannot say, nor do I know what has since become of it. All the surgeons agreed in the propriety of administering the ether. The ether was accordingly administered. The operation was performed in the presence of a large number of spectators—some two or three hundred, with entire success. From that day till the present, I have continued to use it, without producing in a single instance, any unpleasant effects.

6th. Please state your recollection of the first use of a sponge.

Ans. Dr. J. Mason Warren administered it for me, at an operation which I performed, with his assistance, on the 14th of March, 1847. I had used it once before in operating upon an infant for hare-lip. I had never heard of its being used before I so used it.

7th. Please to state the first instance in which you saw, or had any communication with Dr. C. T. Jackson, in connection with the use of ether as an anæsthetic agent.

Ans. The first time I ever saw him in connection with the use of ether, was the 2d of January, 1847, at the hospital.

8th. Was Dr. C. T. Jackson present at any of the operations at the hospital, as far as you recollect, before January, 1847.

Ans. I am very confident he was not.

9th. Was he present at any private operation with ether, to your knowledge, before January, 1847?

Ans. He might have been, but not to my knowledge. I believe he was with Dr. Warren.

10th. When and how did it first come to your knowledge that Dr. C. T. Jackson claimed to have had any connection with the ether discovery?

Ans. I can't fix the precise time. I should say it was some weeks after the seventh of November. I was then told by Dr. J. B. S. Jackson that Dr. Charles T. Jackson first suggested the use of ether as an anæsthetic agent.

11th. Is there any fact in your knowledge tending to show that any of the operations at the hospital were performed at the request of Dr. C. T. Jackson?

Ans. Not to my knowledge.

12th. When you performed the operations in October and November to which you have testified, had you any suspicion that Dr. C. T. Jackson was in any way connected with the discovery?

(Objected to.)

Ans. No, sir.

13th. What is your opinion of the use of oxygen in cases of asphyxia?

Ans. I should not think it so useful as atmospheric air; though it is a respirable gas. Experiments show that animals who breathe it exclusively for a number of hours, die. That is matter of opinion, however.

14th. What is the result of your experience as to the use of nitrous oxide gas as an anæsthetic agent? Please answer as to its uniformity of operation, safety, efficiency, and convenience of making, procuring and using.

Ans. I have never seen it attempted to be used but once. I think Dr. Henry J. Bigelow did once use it at the hospital with partial success. The effects produced by its inhalation are very uncertain—very different in different subjects—and, therefore, it cannot be relied upon for the purposes which we want. I don't know that it might not be safe. I should have doubts about its answering the purpose. It is exceedingly inconvenient. It requires a practical chemist of some skill to make it. The difficulty of using it would be, I should think, from having an inadequate supply, and from the mode in which it is inhaled.

15th. Do you know of anything tending to show that Dr. C. T. Jackson advised the substitution of a sponge for the appa-

Ans. No, sir; I do not.

16th. Did you have a conversation with Dr. Horace Wells, of Hartford, on the subject of anæsthesia? If yea, when, and who was present? Please give the whole conversation.

Ans. He called at my house after his return from France; after we had begun to use the ether as an anæsthetic. There was no one present but Dr. Wells and myself. It was in my study. I then asked him if he had ever used sulphuric ether by inhalation, so as to render any one insensible to pain, and performed any surgical operation on the individual while in that state. His answer was that he had not.

17th. In this conversation, did you ask Mr. Wells the question whether he had ever used ether as an anæsthetic agent? What was his reply?

Ans. I have answered this.

18th. Did Dr. Morton administer the ether for you in your private practice in the autumn of 1846? If yea, in what cases?

Ans. He did, in three or four cases. Three I recollect distinctly. They were all three cases of removals of tumors from the breast of females.

19th. In the conversation with Dr. Wells, was your question and his reply confined to surgical cases, as distinguished from dental cases, or how otherwise?

Ans. The impression I derived from the conversation was, that he had never administered sulphuric ether, so as to produce insensibility.

20th. Did he make any claim for the discovery of an anæsthetic agent? if so, what agent?

Ans. I am not aware that he said anything on that subject.

21st. Are you aware that Dr. C. T. Jackson has claimed that the first operations at the hospital were performed at his request?

Ans. I know nothing more about it than what I have seen in print. I never had any conversations with him on that subject.

22d. Are you aware that he claims that the sponge was substituted for the apparatus, at his suggestion?

Ans. I am not aware of it.

23d. Do you know of any fact tending to show that he gave any advice respecting this substitution?

Ans. I do not.

Cross-interrogatories by A. Jackson, jr., Esq., counsel for Dr. C. T. Jackson.

1st. Several times during the preceding answers to the questions there has been a reference to the deposition of Dr. J. Mason Warren, and the other gentlemen connected with the Massachusetts Hospital. Whether the reference was to the depositions taken here by Mr. Putnam? If aye, will you please state from whom you received them? How long since? Whether they were printed? Whether the whole examination was printed of those gentlemen to whose depositions you referred?

Ans. I referred to some printed depositions which were sent

me. I think I received them about a week since, franked by some member of Congress; I don't know who. I read the depositions of J. Mason Warren, and his father, and Dr. Bigelow. That is all I know about them. I believe I read Dr. Townsend's also. I observed they were all taken recently.

2d. Suppose a person to be asphyxiated after the inhalation of sulphuric ether or chloroform, what is his state? and how is he, or can he be, restored to a natural condition?

Ans. Asphyxia means "pulsular state." The object is to restore the action of the heart; and when asphyxia is produced, as it ordinarily is, from the want of atmospheric air, the lungs must be supplied with it, if possible.

3d. If a person is asphyxiated, would not the inhalation of oxygen gas tend to restore the person much more rapidly than atmospheric air?

Ans. I think not; but that is mere matter of opinion.

4th. Whether you remember that you met Dr. C. T. Jackson, in March, or in the spring of 1847, and overtaking him in his walk, and referring to an article just published by him in the Advertiser, touching etherization, you stated that you did the amputation of November 7th, 1846, and that it was not done by Dr. Warren, as stated in the article?

Ans. I don't remember the time. I stated to him that he had made a mistake in saying that Dr. Warren performed that operation.

5th. Whether you remember that the amputation of November 7th was postponed from October 31st to November 7th?

Ans. I never heard that it was, and have no reason to think that it was.

6th. Whether you remember that Dr. Jackson said that he had spoken with Dr. Warren about the use of ether in that operation of an amputation, or had arranged it with Dr. Warren?

Ans. I have no recollection of it.

7th. Whether you remember that Dr. Jackson, at this meeting in March with you, asked if you would write to him a note in reference to the operation on Alice Mohan?

Ans. I do not recollect such a request. Still, I can't say that it never was made. I certainly never wrote the note.

8th. Whether you remember that in the fluid, at first its substance being unknown, used at the hospital for inhalation in October, 1846, there was some aromatic substance mingled with it? If aye, what was this aromatic substance?

Ans. I only saw it used once in October at the time I operated, and before I used it again, I knew what it was. I remember no aromatic substance mingled with it. I took no notice of it.

9th. Whether you remember that after an operation during the early use of ether at the hospital, in the fall and winter of 1846 and 1847, it frequently happened, black blood being seen from the arteries of the etherized patient, that Dr. Warren and others of the surgeons, in remarks to the class of students, pointed

out the black or dark blood, in connection with what was said of the asphyxiated state of the patient?

Ans. I recollect that in some cases, in our early operations, the blood was dark-colored, which I attributed to a deficiency of atmospheric air.

10th. Whether, or not, before Dr. Jackson brought the bags of oxygen to the hospital, cases of asphyxia had so occurred that means were sought for, for a speedy recovery of patients so affected?

Ans. I don't know that anything more than the ordinary means were sought for, or that the subject excited much conversation.

11th. Will you please, briefly, to describe the inhalers and their valves? Were the valves fastened with springs?

Ans. It was a glass globe, in which was inserted a sponge saturated with ether; with a tube at one end, to admit atmospheric air, with a valve to prevent the escape of the ether, and, on the opposite side, a mouth-piece with a valve to prevent the breath of the patient entering the globe, and with an outlet in the tube, to allow the escape of the expired air. I cannot say whether the valves were fastened with springs.

12th. Whether, or not, chloroform is a dangerous agent for inhalation? Why? How is this?

Ans. I think it is dangerous. I regard it as such, and I am inclined to believe that the opinion of Malgaigne is correct—that it is a poison, and that insensibility is the first stage of its poisonous action.

13th. Whether chloric ether is a solution of chloroform in alcohol?

Ans. I believe it to be such.

14th. Whether chloric ether is not, to some extent, like chloroform, dangerous?

Ans. I regard it as such.

15th. Whether, in using chloric ether with a wet sponge, the dampness of the sponge separates the alcohol from the chloroform, and leaves the chloroform in the texture of the sponge to be inhaled?

Ans. I should have no doubt that would be the case, from the great affinity between water and alcohol.

16th. Whether, or not, it frequently happens, in dental and surgical operations on etherized patients, that, after the state of total insensibility, there is a period of consciousness while there is no sense of pain?

Ans. I have seen a state of partial consciousness while the patient remained insensible; and, on the other hand, I have seen patients whose sensibility was restored, apparently, before the consciousness.

17th. Does it not very frequently and ordinarily happen, that parturition, under the influence of inhaled ether, takes place without any sense of pain, where perfect consciousness continues?

Ans. I am not sufficiently experienced on the subject to state.

18th. Was it taught, or laid down in the books, before September 30, 1846, that inhalation of pure sulphuric ether could be at-

tended with safety to such an extent as to produce insensibility to pain?

Ans. I am not aware that there was anything said upon the subject. Still, there may have been.

19th. Whether, or not, the ether of the shops—the ether of commerce—by reason of its impurities, is unfit for inhalation, where it is intended to induce a state of insensibility to pain?

Ans. I am not sufficiently familiar with the ether of the shops to answer that question correctly.

20th. Whether or not, in your opinion, the purity of the sulphuric ether from alcohol and acids, and the due admixture of atmospheric air, are not among the important particulars embraced in the discovery of etherization?

Ans. They are among the important particulars connected with the discovery, I should think. I think, if we did not care to have atmospheric air, we should kill our patients with asphyxia.

21st. Whether or not, any person can be the author of a discovery in the inductive sciences, without either originating any new idea, or devising the means of establishing the truth of a conjecture, whether more or less probable, previously brought to view by another person?

Ans. No, I should think not; but anybody else can answer that as well as I can.

22d. Whether, or not, you are familiar with the facts and early history of the publication of etherization, in October, 1846, and the winter and spring following?

Ans. I am acquainted with all the facts connected with the practical application of the discovery. I have not read all the publications on the subject.

23d. Whether, or not, you can specify any new idea connected with the discovery of etherization first originated by Dr. Morton, or any new experiment devised by him, by which that discovery was established?

Ans. The only fact was the practical application of the discovery. The experiment was his administering it to a person and removing a tooth without pain. It had never been done before, I suspect, by any person.

24th. Whether, or not, you remember that, at the operation at the hospital, of 2d January, the fact that no black or dark colored blood was seen to flow from the arteries?

Ans. I don't remember anything about it?

25th. Is not the full etherized state generally one of agreeable dreams?

Ans. That used to be the condition, but, when we carry it further, I think it is a state of insensibility and unconsciousness.

26th. Suppose that a person knew that, by reason of a certain process he was insensible to pain in the nerves of sensation in his throat, could he not infer from this fact that, if he repeated the same process, he would become insensible to pain produced in another part of his body, as for instance, a burn or blister on his arm?

Ans. I should not think that would be a legitimate conclusion, because a wound produces a different kind of pain from that which arises from the effect upon an uninjured part of the body.

27th. Do you concur with Whewell, the historian of the inductive sciences, in the following opinion of his:—"I do not concede that experiments of verification, made after a discovery has been clearly brought to view by one person, and devised by the discoverer, and committed by him for performance to another, give the operator a right to claim the discovery as his own"?

Ans. If the discovery has been fairly made I should agree with him. The only question would be, whether a vague notion of this kind would constitute a discovery.

28th. Is not a man, devoted to scientific research, likely to draw inferences, more or less probable, from any and every observation, casual or otherwise, he may make, which points more or less clearly to a new scientific truth?

Ans. I should think so.

29th. Can you state about how long it is that Dr. Jackson has been retired from surgical and medical practice?

Ans. No, I cannot.

30th. Did you know of Dr. Jackson's engagements in 1846 and 1847? His occupation in surveys for the United States Government? How much was he away from Boston?

Ans. No, sir; I only generally knew that he was employed by the government in the survey.

31st. Whether or not the pain arising from inhalation of chlorine gas is severe or agonising?

Ans. Yes. It is very distressing to the patient.

GEO. HAYWARD.

COMMONWEALTH OF MASSACHUSETTS, }
Suffolk County. } ss.

We certify that the foregoing is a true copy of the deposition *in perpetuum*, of George Hayward, taken before us upon the petition of Wm. T. G. Morton, under the statutes of this commonwealth.

GEO. T. CURTIS,

J. P. PUTNAM,

Two Justices of the Peace and Counsellors at Law.

Boston, January 25, 1853.

APPENDIX.

TESTIMONY IN RELATION TO THE CLAIMS OF
DR. HORACE WELLS, WITH EVIDENCE
EXPLANATORY THERETO.

STATE OF CONNECTICUT, }
County of Hartford. }

I, Samuel A. Cooley, a citizen of Hartford, county of Hartford, State of Connecticut, depose and say that on the evening of the 10th day of December, in the year 1844, that one G. Q. Colton gave a public exhibition in the Union Hall in the said city of Hartford, to show the effect produced upon the human system by the inhaling of nitrous oxyd or laughing gas; and, in accordance with the request of several gentlemen, the said Colton did give a private exhibition on the morning of December 11, 1844, at the said hall; and that the deponent then inhaled a portion of said nitrous oxyd gas, to ascertain its peculiar effect upon his system; and that there were present, at that time, the said Colton, Horace Wells, C. F. Colton, Benjamin Moulton, and several other gentlemen, to the deponent at this time unknown; and that the said deponent, while under the influence of the said gas, did run against and throw down several of the settees in said Hall, thereby throwing himself down, and causing several severe bruises upon his knees, and other parts of his person; and that, after the peculiar influence of said gas had subsided, his friends then present asked if he had not injured himself, and then directed his attention to the acts which he had committed unconsciously while under the operation of said gas. He then found by examination that his knees were severely injured; and he then exposed his knees to those present, and found that the skin was severely abraded and broken; and that the deponent then remarked "that he believed that a person might get into a fight with several persons and not know when he was hurt, so unconscious was a person of pain while under the influence of the said gas;" and the said deponent further remarked, "that he believed that if a person could be restrained, that he could undergo a severe surgical operation, without feeling any pain at the time." Dr. Wells then remarked, "that he believed that a person could have a tooth extracted while under its influence, and not experience any pain;" and the said Wells further remarked, "that he had a wisdom tooth that troubled him exceedingly, and if the said G. Q. Colton would fill his bag with some of the gas, he would go up to his office and try the experiment," which the said Colton did; and the said Wells, C. F. Colton, and G. Q. Colton, and your deponent,

and others at this time unknown to said deponent, proceeded to the office of said Wells; and that said Wells there inhaled the gas, and a tooth was extracted by Dr. Riggs, a dentist then present; and that the said Wells, after the effect of the gas had subsided, exclaimed, "A new era in tooth pulling;" and the deponent doth further declare, that the said Wells and the deponent then advised with each other, and proceeded to construct an apparatus, to be located in New York or Boston, to carry on exclusively the business of tooth pulling without pain; and that the said Wells and deponent did experiment, and your deponent did manufacture for the said Wells certain articles to perfect the operation of said gas; and that the *said Wells, assisted by your deponent, did extract several teeth for different individuals* to your deponent unknown; and that your deponent had several offers to construct apparatus for different surgeons and dentists, but which offers he refused, relying upon the verbal agreement of said Wells; and that your deponent did administer the *said nitrous oxyd gas to individuals who underwent severe surgical operations*, without experiencing any pain; and your deponent doth further declare, that the said Wells did visit Boston to complete the arrangement, understood by your deponent to be the introduction of this gas, as an anæsthetic remedy, for the extraction of teeth, and the performing of surgical operations, without pain to the patient, while under the influence of said gas; and that, after an absence of some days, the said Wells returned from Boston to Hartford, and said to your deponent, that he had so much other business to attend to that he could not devote any more of his time to the business, but *advised* your deponent to *go on*; and that your deponent could make money out of the business. Your deponent further affirms and declares, that he gave several public lectures and exhibitions at the Union and City Halls, in said city of Hartford; also in various other places in said State of Connecticut; also in Massachusetts and New York; and that your deponent did always explain to his audiences *the wonderful effects of this gas in surgical operations*; and that your deponent did believe that the day was not far distant when the said gas would be brought into general use for said purposes, viz: "the performance of surgical operations without pain or suffering to the patient." Your deponent further declares, that after some time past in lecturing on the subject, he learned by the public prints that some person or persons, to your deponent now unknown, had laid claim to the discovery of the properties of said gas. Your deponent further affirms, that he, having other business to attend to, relinquished the exhibition of its effects, but occasionally *administered the said gas when requested to by surgeons and dentists*; and your deponent further affirms, and solemnly declares, that he believes that the peculiar effects of the said

nitrous oxyd gas was unknown until the remarks made by him at the time aforesaid; and that the first application thereof was made by the said Wells, in company with your deponent; and he further says, that the petitioners now before your committee did not originate or discover the peculiar properties of said gas, and knew nothing thereof, until the visit of said Wells to Boston; and your deponent doth further depose and say, that the reason for his not urging his claim for said discovery, has been the want of the requisite means to enable him so to do, although often advised by his friends to move in the matter.

DEAR SIR: I have had an opportunity of perusing a statement which you forwarded to Washington, in aid of the claim of the widow of the late Dr. Horace Wells to the discovery of her husband of the anæsthetic properties of nitrous oxyd gas.

Although a stranger to you personally, I am interested in the subject to which your statement relates, because I claim the discovery of the anæsthetic properties of ether, and the priority and merit of these discoveries have frequently been brought into discussion.

I have therefore taken the liberty of addressing to you this letter for the purpose of drawing from you, upon the several points contained in your statement, more precise and definite information than it at present conveys. If you will be kind enough to answer the inquiries which I subjoin it cannot injure the lady in whose behalf you have given your evidence, but may tend to settle a dispute in which it is not too much to say that the whole civilized world is interested. I notice in the statement to which I refer, you say that in a private exhibition given by G. Q. Colton, in December, 1844, to show the effects produced upon the human system by inhaling nitrous oxyd gas, and after the gas had been administered to yourself, that in consequence of throwing yourself down and tumbling against settees, while under the effects, that you found the skin upon your knees severely abraded and broken. You further remark, that you exposed your knees in this condition to the spectators.

1st. Now, sir, will you be kind enough to name, if you remember, any person to whom you made this exposure?

Farther on in your statement, you say that in conjunction with Horace Wells, "you proceeded to construct an apparatus to be located in New York or Boston to carry on exclusively the business of tooth pulling without pain. Upon this topic I wish also to suggest a few inquiries.

2d. Did not you and Wells enter into a partnership for this purpose?

I find also in your statement as follows: "Said Wells, assisted by your deponent, did extract several teeth for different individuals, to your deponent unknown."

3d. Are not these the four experiments embraced in the pamphlet prepared by Dr. Wells to substantiate his claim?

4th. Do you know of any other experiments, except those above referred to which Dr. Wells made prior to the discovery of the anæsthetic properties of ether?

You go on to say that you administered "nitrous oxyd gas to several individuals, who underwent severe surgical operations without pain."

5th. Was not all these subsequent to the discovery of the anæsthetic properties of ether in 1846?

I find that after narrating that Dr. Wells went on to Boston for the purpose of exhibiting the discovery in that city, "the said Wells returned to Hartford, and said to your deponent that he had so much other business to attend to that he could not devote any more of his time to the business, but advised your deponent to go on."

6th. Now I would respectfully beg leave to ask if Dr. Wells, after his return from Boston, did not expressly declare that he was disappointed in the pain-relieving properties of nitrous oxyd, and did not state to you that he abandoned the thing as a failure, and did his advice to you to go on mean in lecturing upon nitrous oxyd, and in administering it to people for their amusement and gratification?

You further declare that in the public exhibitions which you subsequently gave of the effects of nitrous oxyd, "you always explained to your audiences the wonderful effects of this gas in surgical operations."

7th. Can you name any individual who heard you make the above explanation?

You say, moreover, "that you administered gas when requested to do so by surgeons and dentists."

8th. Was this not subsequent to the ether discovery?

9th. Did you know of Dr. Wells going to Boston soon after I discovered the anæsthetic properties of ether in 1846, and did you converse with him on his return about the matter, and did he then make any claim to that discovery?

10th. From what you see and knew of Dr. Wells before he went to, and after his return from, Boston, in January, 1845,

will you say whether, as regards his health, there was any material change?

Another question, and I will relieve you from this list of interrogations, which I have deemed it my duty to suggest, in order to draw out all the information you possess upon this important truth.

11th. In any of your experiments did you ever use ether for the purpose of relieving the pain in surgical operations?

If you will be kind enough to answer the questions which I have thus taken the liberty of proposing, the whole matter, so far as it lies within your knowledge will be brought out, and the information supplied for forming an intelligent and reliable opinion about the matter in controversy.

Very respectfully,

WM. T. G. MORTON.

SAMUEL A. COOLEY.

HARTFORD, *October 10, 1852.*

DEAR SIR:—I have received your communication of October, and before replying to the questions you suggest, I desire to say a word explanatory of the statement to which you allude.

Having understood that the subject of the discovery of an anæsthetic agent was before a committee of Congress, I addressed a note to the Hon. Charles Chapman, member from this district, for the purpose of inquiring whether any information which I possessed would throw any light upon the matter. To this letter I received for reply, that any information which would substantiate the claim of Mrs. Wells would be thankfully received. In accordance with this intimation, I prepared the statement to which you refer in your letter, and forwarded the same to Washington.

I have no desire to withhold any information which I possess, and had I known at the time that the inquiries which you now make would have any bearing upon the subject, I should have been willing to have embraced, in my original statement, the answers which I now give to your several questions, which I will answer in their own order:

Ans. 1. In my statement you will find there was present, at the time, G. Q. Colton, C. F. Colton, Benjamin Moulton,

Dr. Wells, and others, to whom I exposed my limbs; and I remember going that day into the office of Dr. Greenleaf, dentist, of this city, and there showing him my shins and knees, and asked him to try the experiment of tooth-pulling, explaining to him the effects that I thought it would have upon the system. He declined doing so, for fear of injuring some one by inhaling of the gas.

You ask me "if I went into partnership with Wells to prosecute this business?"

Vide Dr. Wells's publication in the Hartford Courant, as to a free donation of this discovery to the world.

Ans. 2. In answer, I would say that Wells and myself entered into a verbal agreement to go on and construct an apparatus, and make purchases of materials for the full completion of manufacturing the gas, with the intention to establish an office in New York and Boston—one of us to reside in each of those places. Our plan was to manufacture the gas ourselves, which was to be kept in a gasometer, in an adjoining room, with a pipe leading from it to the operating chair. By this means we expected to keep the whole matter a secret, and under our sole control, which would insure us a large and lucrative business.

Ans. 3. As regards the experiments of extracting teeth for several individuals, I believe that those four experiments in Wells's pamphlet were among the number, but at present could not state positively, as after I had made the gas for Wells I did not remain to witness the operations. I manufactured the gas for Wells, and not until two or three weeks before his death, in January, 1848, did I impart to him fully the secret of the improvements, and manner of its preparation. Some little time before his death, Wells was in Hartford, and stated to me that he was about to enter into his dental business in New York, and offered me fifty dollars per week to go there as his assistant; and it was at this time that I gave him full information about the preparation of the component parts of the gas. In pursuance of an arrangement with Wells while in Hartford, I met him in New York the week before he died, in reference to going in with him. At this time Wells was engaged in auction sales of pictures he had brought from Paris, in the spring of 1847. I assisted him somewhat in selling, while there. I left Wells apparently well, and actively engaged about his business. On Friday I returned to Hartford, and on the next Monday I heard of his death.

Ans. 4. I was not present; neither do I know of any experiments or operations performed by him, under the influence of the gas, after his return from Boston, and prior to the introduction of ether as an anæsthetic agent.

Ans. 5. I did not exhibit the nitrous oxyd for the purpose of producing insensibility to pain, until subsequent to the alleged discovery of the anæsthetic properties of ether, by you, in 1846.

Ans. 6. The first intimation I had that Dr. Wells did not intend to carry out our partnership arrangement with me,

was when he informed me, several weeks after this arrangement was entered into between us, that he had just returned from Boston, where he had made a public experiment which had proved a failure. He then said to me that he was disappointed in the effects of the gas, and that it would not operate as we had hoped and thought it would, as there was no certainty to be placed upon it; and, consequently, he should abandon it, as he had so much other business to attend to, and as the gas would not operate in all cases alike, and therefore could not be trusted. He advised me to go on with my exhibitions, and thought I could make money out of them, and that, although he had got through with his experiments in the business, he would assist me in any way he could, in order that I might succeed in my lectures; and suggested to me to connect with my lectures and administering the gas, mesmerism, and the use of a card of questions which he had prepared—so arranged that a correct answer could be given, by a person in an adjoining room, as to the time of day, &c., by the particular manner in which the question was asked. Feeling some confidence that by following his suggestions I should realize sufficient from the lectures to reimburse me for my time and expenses while in company with him, the matter was then dropped between us, and I pursued my lectures.

Ans. 7. To this question, as to whether I can name any person that was present at my exhibitions, that heard me make the statement of the wonderful effects produced by the gas upon the system, I can call to mind but one at present, and that is Mr. Henry Moore, a clerk in the post office in this city; although a great number of others have spoken to me since about the matter, yet I cannot at this moment call them to mind by their names.

Ans. 8. Yes, it was after the ether discovery, in 1846, that I administered the gas for surgeons and dentists—that then being an attempt, by us all, to renew the experiments, as the public and ourselves had lost confidence and doubted the practicability of the thing, until the successful introduction of ether. I administered gas for Dr. Ellsworth, an intimate friend of Wells, and also to several others; but the last time that I exhibited it was to a lady at Dr. Greenleaf's office, which, in a great measure, proved a failure, and then ether and chloroform assumed the place of the gas, and operations were more successful in the use of them; and since then I have had but little to do with the matter, as other business has taken up my time and attention.

Vide evidence
of Dr. Green-
leaf, *ad idem*.

Ans. 9. I knew of Dr. Wells going to Boston, soon after the noise in the papers of the discovery of the effects of ether by you, in 1846, and had a conversation with him, on his return, about your discovery. He made no claim to me of the discovery being his; but, on the contrary, expressed regrets that we had not continued our experiments to a successful termination.

Ans. 10. I discovered no material change in the health of Dr. Wells, after his return from Boston, in January, 1845; and he followed his professional business, the same as usual, until early in the spring, when he commenced getting up a panorama or exhibition of natural history, and which he exhibited for some time in the City Hall, in this city.

Ans. 11. You ask me if in any of our experiments ether was used for the purpose of relieving pain. To this question I would answer no—that in our experiments Dr. Wells and myself never exhibited ether to produce that effect.

Yours, respectfully,

SAMUEL A. COOLEY.

Dr. MORTON.

Correspondence between Drs. Morton and Wells, in which the former announces his discovery in 1846.

"BOSTON, October 19, 1846.

"FRIEND WELLS—*Dear Sir:* I write to inform you that I have discovered a preparation, by inhaling which, a person is thrown into sound sleep. The time required to produce sleep is only a few moments, and the time in which persons remain asleep can be regulated at pleasure. While in this state the severest surgical or dental operations may be performed, the patient not experiencing the slightest pain. I have perfected it, and am now about sending out agents to dispose of the right to use it. I will dispose of a right to an individual to use it in his own practice alone, or for a town, country or State. My object in writing you is to know if you would not like to visit New York and the other cities, and dispose of rights upon shares. I have used the compound in more than one hundred and sixty cases, in extracting teeth, and I have been invited to administer to patients in the Massachusetts General Hospital, and have succeeded in every case.

"The Professors, Warren and Hayward, have given me certificates to this effect. I have administered it at the Hospital, in the presence of the students and physicians—the room for operations being as full as possible. For further particulars I will refer you to extracts from the daily journals of this city, which I forward to you.

"Respectfully yours,

WM. T. G. MORTON."

Reply to the foregoing letter.

"HARTFORD, CONNECTICUT, *October 20, 1846.*

"DR. MORTON—*Dear Sir:* Your letter dated yesterday, is just received, and I hasten to answer it, for I fear you will adopt a method in disposing of your rights, which will defeat your object. Before you make any arrangements whatever, I wish to see you. I think I will be in Boston the first of next week—probably Monday night. If the operation of administering the gas is not attended with too much trouble, and will produce the effect you state, it will, undoubtedly, be a fortune to you, provided it is rightly managed.

"Yours, in haste, H. WELLS."

See testimony of Hon. James Dixon, authenticating this correspondence from Wells's admissions.

Testimony of R. H. Eddy as to the interview between Drs. Morton and Wells.

"BOSTON, *February 17th, 1847.*

"R. H. DANA, Esq—*Dear Sir:* In reply to your note of this morning, I have to state that about the time I was engaged in preparing the papers for the procural of the patent, in the United States, on the discovery of Dr. Morton for preventing pain in surgical operations, by the inhalation of the vapor of sulphuric ether, I was requested by Dr. Morton to call at his office to have an interview with the late Dr. Horace Wells, who was then on a visit to this city, and who, Dr. Morton thought, might be able to render him valuable advice and assistance in regard to the mode of disposing of privileges to use the discovery. Accordingly I had an interview with Dr. Wells. During such meeting we conversed freely on the discovery, and in relation to the experiments Dr. Wells had been witness to in the office of Dr. Morton. The details of our conversation I do not recollect sufficiently to attempt to relate them, but the whole of it, and the manner of Dr. Wells at the time, led me, in no respect, to any suspicion that he (Dr. Wells) had ever before been aware of the then discovered effect of ether in annulling pain during a surgical

operation. Dr. Wells doubted the ability of Dr. Morton to procure a patent—not on the ground that he (Dr. Morton) was not the first and original discoverer, but that he (Dr. Wells) believed the discovery was not a legal subject for a patent. He advised him, however, to make application for one, and to dispose of as many licenses as he could, while such application might be pending; in fact, to make as much money out of the discovery as he could, while the excitement in regard to it might last. I must confess that when, some time afterwards, I heard of the pretensions of Dr. Wells to be considered the discoverer of the aforementioned effect of ether, I was struck with great surprise, for his whole conversation with me, at the time of our interview, led me to the belief that he fully and entirely recognized the discovery to have been made by Dr. Morton, or at least partly by him and partly by Dr. C. T. Jackson, as I then supposed.

“Respectfully yours,
“R. H. EDDY.”

First publication by H. Wells.

From the Hartford Courant.

HARTFORD, *December 7, 1846.*

MR. EDITOR: You are aware that there has been much said of late respecting a gas, which, when inhaled, so paralyzes the system as to render it insensible to pain. The Massachusetts General Hospital have adopted its use, and amputations are now being performed without pain. Surgeons generally, throughout the country, are anxiously waiting to know what it is, that they may make a trial of it, and many have already done so with uniform success. As Drs. Charles T. Jackson and W. T. G. Morton, of Boston, claim to be the originators of this invaluable discovery, I will give a short history of its introduction, that the public may decide to whom belongs the honor.

See the testimony of Cooley as to the true facts connected with this experiment, p. 1 to 8.

While reasoning from analogy, I was led to believe that the inhaling of any exhilarating gas, sufficient to cause a great nervous excitement, would so paralyze the system as to render it insensible to pain, or nearly so, for it is well known that when an individual is very much excited by passion, he scarcely feels the severe wound which may at the time be inflicted, and the individual who is said to be “dead drunk,”

may receive severe blows, apparently without the least pain, and when in this state is much more tenacious of life than when in the natural state. I accordingly resolved to try the experiment of inhaling an exhilarating gas myself, for the purpose of having a tooth extracted. I then obtained some nitrous oxyd gas, and requested Dr. J. M. Riggs to perform the operation, at the moment when I should give the signal, resolving to have the tooth extracted before losing all consciousness. This experiment proved to be perfectly successful—it was attended with no pain whatever. I then performed the same operation on twelve or fifteen others, with the same results.

I was so much elated with the discovery, that I started immediately for Boston, resolving to give it into the hands of proper persons, without expecting to derive any pecuniary benefit therefrom. I called on Drs. Warren and Haywood, and made known to them the result of the experiments I had made. They appeared to be interested in the matter, and treated me with much kindness and attention. I was invited by Mr. Warren to address the medical class upon the subject, at the close of his lecture.

I accordingly embraced the opportunity, and took occasion to remark that the same result would be produced, let the nervous system be excited sufficiently by any means whatever; that I had made use of nitrous oxyd gas, or protoxyde of nitrogen, as being the most harmless. I was then invited to administer it to one of the patients, who was expecting to have a limb amputated.

I remained some two or three days in Boston for this purpose, but the patient decided not to have the operation performed at that time. It was then proposed that I should administer it to an individual, for the purpose of extracting a tooth. Accordingly, a large number of students, with several physicians, met to see the operation performed—one of their number to be a patient. Unfortunately for the experiment, the gas bag was by mistake withdrawn much too soon, and he was but partially under its influence when the tooth was extracted. He testified that he experienced some pain, but not as much as usually attends the operation. As there was no other patient present, that the experiment might be repeated, and as several expressed their opinion that it was a humbug affair, (which, in fact, was all the thanks I got for this gratuitous service,) I accordingly left the next morning for home. While in Boston, I conversed with Drs. Charles T. Jackson and W. T. G. Morton upon the subject, both of whom admitted it to be entirely new to them. Dr. Jackson expressed much surprise that severe operations could be performed without pain, and these are the individuals who claim to be the inventors.

See partnership with Cooly page 6.

Not confirmed by any evidence.

Note that no allusion is made to the since alleged fact that an operation was performed under Ether by Dr. Marcy.

When I commenced giving the gas, I noticed one very remarkable circumstance attending it, which was, that those who sat down resolving to have an operation performed under its influence, had no disposition to exert the muscular system in the least, but would remain quiet as if partially asleep. Whereas, if the same individuals were to inhale the gas under any other circumstances, it would seem impossible to restrain them from over exertion.

I would here remark, that when I was deciding what exhilarating agent to use for this purpose, it immediately occurred to me that it would be best to use nitrous oxyd gas, or sulphuric ether. I advised with Dr. Marcy, of this city, and by his advice I continued to use the former, as being the least likely to do injury, although it was attended with more trouble in its preparation. If Drs. Jackson and Morton claim that they are something else, I reply that it is the same in principle if not in name, and they cannot use anything which will produce more satisfactory results; and I made these results known to both of these individuals, more than a year since.

After making the above statement of facts, I leave it for the public to decide to whom belongs the honor of the discovery.

Yours, truly,
HORACE WELLS, Surgeon Dentist.

HARTFORD, *November 7, 1852.*

DEAR SIR: Yours, of October 15th, is before me, and in answer to your several inquiries in regard to my connexion with Dr. Wells, and also as to my information on facts that may have any bearing upon the discovery of the effects produced by inhaling nitrous oxyd gas. In answer to your question, I would state that I wish to render justice to all parties concerned. Having been connected in business with Dr. Wells, and being very intimate with him, we had a great many conversations together about the effect of the gas, and in those conversations he always told me he derived his first idea of the matter from remarks made by Dr. S. A. Cooley, at a private exhibition of laughing gas, given at the Union Hall, in this

See Cooley, p. 1, and Ellsworth.

city, in the winter of 1844 or 45; and that, from those remarks, and what he witnessed himself, he immediately applied it to his own business.

During the winter of 1845 and spring of 1846, Dr. Wells See Roberts. made application for a patent for a "shower bath," in his name, which Col. Thos. Roberts claimed to be equally interested in. Their respective claim was left to the decision of Francis Parson, Esq., of this city, and decided in Dr. Wells' favor. I then made arrangements with Dr. Wells to travel and dispose of rights to manufacture his baths, and at that time I considered that he had abandoned the thing entirely, as he expressed himself to me that the operation in some See Cooley. cases proved a perfect failure, and spoke of his unsuccessful trial in Boston in 1845; he also stated that he had received a letter from you, saying that you desired all the information about the matter that he possessed, as you believed a stir might be made in the business, and some money made out of it. He told me that he had written you to go ahead, and anything Dr. "Wells" could do for you he would do with pleasure; he also told me he thought, you could put it through, if any body could, for you had *brass* enough for anything. In November, 1846, he sold out his shower-bath business to Col. See S. S. Boll and Williams. Roberts, and about that time a sale of paintings came off at Union Hall, and sold at big prices; he knowing what they could be bought for in Paris, at once made up his mind to visit Paris on that business, and was anxious for me to act auctioneer, (which business I was in at that time,) in the sale of them in this country. In three or four weeks he started for Paris. About this time the effects of ether had become public in Boston, and he expressed himself as being very sorry that See Brinley. he had not prosecuted his experiments to a successful termination; and he also regretted his stopping the matter when he did, for he thought an immense fortune might be made out of the business, and that the discovery would reflect great honor upon the discoverer. I think of nothing further at this time.

Respectfully yours,
G. HOWELL OLMSTEAD, Jr.

To DOCTOR MORTON.

P. S. John B. Corning, of this city, was a partner of mine in 1846 and 1847; he may give you some information that has escaped my memory.
G. H. O.

HARTFORD, *November 4, 1852.*

DEAR SIR: Yours of the 2d inst. is received, and, in reply, I have to say that I have knowledge in regard to Dr. Wells going to Paris. The idea was suggested to him by a sale of paintings, by J. Eddy, in this city, near the close of November, 1846.

See Olmstead,
p. 13.

Dr. Wells was present at Eddy's sale, and in some way, as he informed me, learned the cost of the paintings, and thought a great deal of money might be made in going to Paris and getting up the paintings, and selling at auction; and that he intended to go into the business extensively.

In two or three weeks after Eddy's sale, Dr. Wells started for Paris. I well understood from Wells his object in visiting Paris was to get pictures, and that only. Wells was gone until March, 1847, when he returned, and called on me at Hartford, and wanted to give us (Bolles and Roberts) large orders for frames for his pictures—something like one hundred and fifty per month.

See Brewster's
letter.

At this time he told me that after he arrived at Paris, and was prosecuting his picture business, he learned that Dr. Jackson, of Boston, was making claim to the gas discovery, and that the medical societies there were about to award a medal for the discovery, and that he claimed the discovery, and was advised by Dr. Brewster, of Paris, to hurry home, and get up his evidence, and forward him, and he would present his claims; also, that he was introduced in Paris by Dr. Brewster, and great notice was taken of him, and he was made the great lion of the day. He told me that he thought that Dr. Brewster would be able to get him something handsome from the different medical societies there.

After I saw Wells in Hartford, and in two or three weeks after his return from Paris, I saw him in New York, and had conversation with him about his picture business, and went with him to his attorney at the custom-house, with reference to his getting out his pictures.

We made him several hundred dollars worth of frames; could not furnish him enough, as he wanted them, and directed him to Waller & Kreps, Broadway, New York, and Henry Collins, 295 Pear street, picture frame manufacturers, who manufactured largely for him.

In answer to your last inquiry, I will say I have no recollection of ever hearing Wells claim the gas discovery, till after his return from Paris.

Truly yours,

S. S. BOLLES.

To the Members of the Honorable Senate and House of Representatives of the U. S. of A. in Congress assembled :

We, the undersigned, learning that a report has been, or is to be made, by a Committee of Congress, awarding the honor of the discovery of the use of anæsthetic agents in surgical operations, to W. T. G. Morton, of Boston, and recommending an appropriation of one hundred thousand dollars to the said Morton, for the said discovery—would respectfully suggest :

See the examination of the signers of this memorial before the U. S. Commissioner as to their knowledge of facts.

That, in view of this appropriation, designed to remunerate the person who has thus benefitted mankind, we desire that the claims of Horace Wells, in the matter of this discovery, should receive just consideration, believing, as we do, that to him, and him alone, is the honor and award due.

Mrs. Wells, the widow of said Horace Wells, (who is now in dependant circumstances, supporting herself and little son, in part by her own exertions, and in part by the aid of her friends,) has what we consider ample proofs to substantiate the claim of her husband, but cannot well afford the expense of contesting the title of honor alone, especially as *that* we believe is already generally conceded to Dr. Wells, by the profession in this country, out of Massachusetts.

Dr. Wells died at the moment when his success was about being fully established, his claim having been allowed by the Connecticut Legislature, the Medical Society of Paris, and by many distinguished surgeons throughout the Union, among whom were the late Kearney Rogers, of New York, and Prof. Mott.

His unfortunate death left no one to defend his cause, while the same thing operated as a stimulant to his opponents, who have since redoubled their efforts. It would be a hardship to deprive his widow of any portion of that reward which Congress might see fit to bestow upon the author of this great discovery, and more especially to award it to those, who, there is every proof, have endeavored to deprive her of her just rights.

We ask but an impartial consideration of the claim of Dr. Wells, so far as substantiated by facts; and that as the representative of her husband, Mrs. Wells may receive any and every reward which Congress may see fit to adjudge—who, in thus doing, would confer a needed favor upon her, and

honor upon our own country, which they represent, while at the same time they would receive the hearty approval of the great mass of the medical profession in this country, who have been not uninterested spectators of this struggle, and who would rejoice to see even a tardy justice done to the memory of one to whom they feel themselves so much indebted.

| | |
|--------------------|------------------------|
| WM. W. ELLSWORTH, | P. W. ELLSWORTH, M. D. |
| THOS. H. SEYMOUR, | L. B. BERESFORD, " " |
| ISAAC TOUCEY, | B. ROGERS, " " |
| JAMES DIXON, | GEORGE HUNTER, " " |
| JOSEPH TRUMBULL, | JOHN S. BUTLER, " " |
| THOS. S. WILLIAMS, | ARCHIBALD WELCH, " " |
| EBENEZER FLOWER, | GEORGE BRINLEY. |

HARTFORD, *March*, 1852.

Resolution of the General Assembly of Connecticut of May, 1847.

See examinations of members of this body before the U. S. Commissioner, as to their knowledge in the premises.

Whereas, it being understood by this Assembly that Dr. Horace Wells, of Hartford, discovered, in 1844, that nitrous oxyd gas, or the vapor of ether, inhaled [by] persons, causes insensibility to pain, in amputation or other surgical operations, which discovery has been most honorably noticed by various medical societies in London, and by the Academy of Medicine, and by the Parisian Medical Society in France, and has since been in use in England, France, and in this country; Therefore,

Resolved by this Assembly, That the aforesaid discovery, by Dr. Wells, of Hartford, Connecticut, of the use of *nitrous oxyd gas*, or *vapor of ether*, in surgical operations, is of great importance to the public, and entitles the inventor to the favorable consideration of his fellow-citizens, and to the high station of a public benefactor.

Passed by the Connecticut Legislature, in 1847.

At a meeting of the City Council of Hartford, on Monday evening, March, 21st, 1852, the following preamble and resolutions were unanimously adopted:

Whereas, The members of this Council have learned that a report is to be made by a committee of Congress, awarding the honor of the discovery of the use of anæsthetic agents in surgical operations, to W. T. G. Morton, of Boston, and recommending an appropriation of one hundred thousand dollars to the said Morton, for the said discovery ; Therefore be it

See examinations of members of this body before the U. S. Commissioner, as to their knowledge in the premises.

Resolved, That the design of this appropriation being to remunerate the person who has, by this discovery, greatly benefitted mankind at large, we consider that the late Horace Wells, of this city, is clearly entitled to precedence, as having been the true author of this important discovery, and to him, and him alone, is due the honor and reward.

Resolved, That to our personal knowledge, the death of Dr. Wells occurred at the moment when he was on the point of fully establishing the justice of his claim, not only in this country, but also abroad, and while his death left no one to defend his cause, his opponents have spared no exertions to avail themselves of the opportunity which his death has given them, to forward their claims.

Resolved, That this discovery, one of the most remarkable of the age, may justly be considered an honor to this State, and is deserving of an especial notice from our next Legislature.

Resolved, That being informed that Mrs. Wells, the widow of the said Horace Wells, has forwarded a petition to Congress, together with documentary evidence of her claim, as representative of her husband, satisfactory to some of our most eminent citizens and surgeons, that a copy of these resolutions, duly signed and evidenced, be forwarded to the Hon. Charles Chapman, member of Congress for this District; also, that additional copies be forwarded to each of the Congressional delegates from this State, now in Washington, and that they be requested to use all proper exertions to obtain a reversal of the decision of said Committee, and an award in favor of Mrs. Wells, as we are fully persuaded that the honor of this discovery belongs wholly and unconditionally to the late Horace Wells.

Examinations before the U. S. Commissioner at Hartford, of the members of the Connecticut Legislature, members of the Council of Hartford, and Physicians and Surgeons, touching their knowledge of the facts of the case assumed in the Resolutions of the Legislature and Counsel, and the foundation of the same, and of the Petition of Dr. G. W. Ellsworth, &c., hereinbefore set forth.

UNITED STATES OF AMERICA:

DISTRICT OF CONNECTICUT,
City of Hartford and State of Connecticut. } ss.

BE IT REMEMBERED, That on this twenty-fourth day of November, in the year of our Lord one thousand eight hundred and fifty-two, and by adjournment till December 10th, 1852, I, Erastus Smith, a Commissioner, duly appointed by the Circuit Court of the United States, for the District of Connecticut, in the Second Circuit, under and by virtue of the Acts of Congress, entitled "An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States," passed February 20th, 1812, and the Act of Congress entitled "An Act, in addition to an Act, entitled 'An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States,'" passed March 1st, 1817, and the Act entitled "An Act to establish the Judicial Courts of the United States," passed September 24th, 1789, did call and cause to be and personally appear before me, at my office, at Hartford, in the city of Hartford, in the said District of Connecticut, in the State aforesaid, C. A. Taft, G. B. Hawley, and others, to testify and the truth to say, on the part and behalf of the petitioner, in a certain matter now depending and undetermined, in the Congress of the United States, at Washington, wherein W. T. G. Morton is petitioner or memorialist. And the said witnesses having been by me first cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy aforesaid, I did carefully examine the said witnesses, and they did thereupon depose, testify, and say as follows, viz:

Dr. CINCINNATUS A. TAFT.

Ques. What is your age and occupation?

Ans. Thirty last March; am a physician.

Ques. Where do you reside, and how long have you resided there?

Ans. I reside in Hartford; have resided there since the spring of 1846.

Ques. Were you acquainted with the late Dr. Horace Wells, and when was your first acquaintance with him?

Ans. I first became acquainted with him in Boston, about January, 1845. I afterwards saw him in Hartford. Had no great acquaintance with him.

Ques. Have you any personal knowledge of the discovery by him of any anæsthetic agent in surgical operations, and if so, what agent?

Ans. I was in Boston, attending medical lectures, in 1844-5. Some time that winter Dr. Warren announced to the class that a gentleman from Hartford wished to give nitrous oxyd gas, for the purpose of rendering the body insensible to pain. He then introduced Dr. Wells to the class. Dr. Wells, that evening, or soon after, gave the gas to several persons in a public hall in Boston. One person had a tooth extracted; he made some noise, apparently from pain, but my impression is that afterwards he stated he was not conscious of any pain. I took the gas from Wells, at that time, but not for any operation, but for the fun of the thing, as did several others. I saw no other experiments to test the thing.

See Wells's statements, and testimony of Cooley and others, that it was a total failure.

Ques. Had the medical class prepared nitrous oxyd gas for the purpose of inhaling, the evening that Dr. Wells was introduced to the class by Dr. Warren, for sport?

Ans. Not to my knowledge.

Ques. Did Dr. Wells make his experiment the same evening he was introduced to the class?

Ans. I cannot say.

Ques. Have you not sworn on a previous occasion that it was the same evening?

Ans. Not if I recollect right.

Ques. Was it not in an adjoining room in the medical college where Wells addressed the class?

Ans. I think not.

Ques. Who was the person who had the tooth extracted?

Ans. I do not now recollect, nor do I now remember whether he was a member of the class or not.

Ques. Would you swear that you heard him say he experienced no pain?

Ans. No, I would not swear to it; but it is my impression he said so, after the influence of the gas had passed off that evening.

Ques. Will you name any other person who inhaled the gas beside yourself?

Ans. Dr. Lanborn, of Reading, Mass., who I believe is now in Boston, is the only one whose name I can now call to mind.

Ques. Did you sign the certificate signed by Dr. Fuller and others, in the spring of 1847?

Ans. I have no recollection of ever signing it. I did not know the persons mentioned in the certificate, with the exception of J. G. Wells.

C. A. TAFT, M. D.

GEO. BRINLEY.

Ques. What is your age and occupation?

Ans. I am seventy-eight years old; I am in no business.

Ques. Were you acquainted with the late Dr. Horace Wells?

Ans. I was partially acquainted with him.

Ques. Have you any personal knowledge of any discovery made by him of the use of anæsthetic agents in surgical operations?

Ans. I have no personal knowledge. I received my information from Dr. Sumner and others, in 1844, or about that time, that Dr. Wells used nitrous oxyd gas to prevent pain.

Ques. Did you say, in the presence of Dr. Wells, that the individual who discovered this idea was stupid that he did not pursue it?

Ans. I said it to him.

Ques. What did he say?

Ans. I did not know him at the time, and begged his pardon. He said he would forgive me, as he saw I was his friend; that he was stupid, or a jackass, that he had not pursued it.

GEORGE BRINLEY.

See Cooley, Eddy, Olmstead, and correspondence with Morton.

See in connection with this voluntary statement his examination following.

THIS IS TO CERTIFY, That during the last two or three years, I have been familiar with the successful operations of Dr. Horace Wells, and other dentists of this city, in extracting teeth, without pain, by the aid of nitrous oxyd gas, and he, alone, was regarded as the author of this discovery.

G. B. HAWLEY, M. D.

HARTFORD, MARCH 27, 1847.

Dr. G. B. HAWLEY.

Ques. What is your age and occupation?

Ans. Forty; I am a physician.

Ques. Was you acquainted with the late Dr. Horace Wells?

Ans. I was, partially.

Ques. Have you any personal knowledge of any discovery made by him of the use of anæsthetic agents in surgical operations?

Ans. I have no personal knowledge of his discovery. I have the knowledge of the use of such agents, but was never present when Wells administered them.

Ques. How long have you resided in Hartford?

Ans. Since 1836.

Ques. In your practice have you made use of anæsthetic agents in surgical operations, and if yea, what?

Ans. I have; chloroform.

Ques. Was you present at the amputation of a limb of a young man by the name of Goodale, in East Hartford, by Dr. Ellsworth?

Ans. Yes, sir.

Ques. What anæsthetic agent was administered to him?

Ans. Nitrous oxyd gas.

Ques. Was the limb amputated apparently without pain?

Ans. Not entirely, but essentially relieved the pain.

Ques. For how long a time did he seem to be relieved from pain?

Ans. During the whole operation.

Ques. How many times was the gas administered during the operation?

Ans. I can't say as to the number; he breathed it as necessity required. See same contra.

Ques. Who administered the gas?

Ans. I do not recollect.

Ques. At what time was this operation performed?

Ans. In the winter of 1847-8 I think. I think we went out in a sleigh.

Ques. by E. A. Bulkley. Did you sign the certificate signed by Dr. Fuller, and other physicians of Hartford, relative to

Dr. Wells's discovery, and are the facts stated in the same true?

(Objected to.)

Ans. I did, and they are true.

Ques. by H. Cornwall. What was the certificate you signed?

Ans. I cannot state the wording of the certificate.

Ques. At this time, if you do not recollect the wording of the certificate, how can you state the facts set forth in it are true?

Ans. I judge of my recollection of my impressions at the time I signed the certificate.

Ques. Have you ever signed more than one certificate?

Ans. Not to my recollection.

G. B. HAWLEY.

Dr. DAVID CRARY. December 9. (Affirmed.)

Ques. What is your age, residence, and occupation?

Ans. I am forty-six; reside in Hartford; am a physician and surgeon.

Ques. How long have you resided in Hartford?

Ans. About fourteen years.

Ques. Were you acquainted with the late Dr. Horace Wells?

Ans. I was.

Ques. Have you any personal knowledge of any discovery by him of the use of any anæsthetic agent in surgical operations, previous to October, 1846?

Ans. No.

Ques. Have you, in your practice, ever made use of nitrous oxyd gas, as an anæsthetic agent in surgical operations?

Ans. No.

Ques. Have you ever seen nitrous oxyd used in surgical operations? If yea, how many times, and when first, and who the patient, and what the operation?

Ans. I have seen it but once—January 4th, 1848. I do not know the name of the patient, but it was a woman, in South Prospect street, and the operation was a removal of a tumor, by Dr. Berresford, assisted by Dr. Grant and myself.

Cross-examined by Welch.

Ques. Was not Dr. Wells, prior to October 1st, 1846, reputed to be the discoverer of the fact that dental and surgical operations might be performed without pain, by the use of anæsthetic agents?

(Objected to.)

Ans. I can't say as to date. He was so reputed a long time before the operation spoken of above was performed.

Ques. Was not Dr. Wells's discovery the first of the kind of which you ever heard?

Ans. Yes.

Ques. direct. Was not Dr. Hackerman, of London, prior to 1830, reputed to be the discoverer of the fact that by the inhalation of gases, pain, in surgical operations, was destroyed?

Ans. I may have read it, but I have no recollection that such was the fact.

Ques. In your answer to first cross-interrogatory, what do you mean by a long time?

Ans. I should say at least one year, and perhaps two years.

D. CRARY.

Dr. E. K. HUNT.

Ques. What is your age and occupation?

Ans. My age is forty-two; my profession, a physician and surgeon.

Ques. How long have you been a resident of Hartford?

Ans. About thirteen years.

Ques. Was you acquainted with the late Dr. Horace Wells?

Ans. I was.

Ques. Have you any personal knowledge of any experiments made by him of the use of anæsthetic agents in surgical operations?

Ans. I never saw him make any experiments.

Question by E. A. Bulkley, counsel for Mrs. Wells. Were the matters set forth in the certificate signed by Dr. Fuller and other physicians of Hartford, and also by yourself, according to your best knowledge and belief, true?

(Objected to.)

Ans. I believe they were true. I saw all the parties named in the certificate, and questioned each one.

Question by H. Cornwall. Have you any experience in the use of anæsthetic agents ; and if so, when and what ?

Ans. I cannot state dates. I have not used any until within the last three years. I used chloroform and chloric ether.

Ques. Was you acquainted with Milo Lee, F. C. Goodrich, J. G. Wells, and Wm. H. Burleigh ?

Ans. I was acquainted with the two last named—not with the others. They all came together to my office, at my request, to answer any question I might ask respecting their personal experience in the use of any article for annihilating pain.

Ques. At what time did they come to your office ?

Ans. I think in March, 1847.

E. K. HUNT.

Dr. JOHN SCHRU.

Ques. What is your age and occupation ?

Ans. I am thirty-five, and a physician.

Ques. Where do you reside ?

Ans. In Hartford.

Ques. Were you acquainted with the late Dr. Horace Wells ?

Ans. Yes, sir.

Ques. Have you any personal knowledge of any experiments made by him of the use of anæsthetic agents in surgical operations ?

Ans. I have no personal knowledge.

Ques. Did you know anything in relation to any such discovery by any one previous to October 1st, 1846 ?

Ans. Not to my present recollection.

Question by E. A. Bulkley. How long have you resided in Hartford ?

Ans. I came in the fall of 1844.

Ques. Do you practice surgery at all ?

Ans. To some extent.

Question by H. Cornwall. Have you ever seen any persons on whom Dr. Wells experimented ?

Ans. Not to my knowledge.

Question by same. Did Dr. Wells ever come to you to talk with you on this subject ; and if so, when ?

Ans. He came to me in 1846 or 1847—after his return from Europe, and after a controversy had arisen—with a paper he wished me to sign relative to his discovery, which I think I signed.

JOHN SCHRU, M. D.

Dr. G. W. RUSSELL.

Ques. What is your age and occupation?

Ans. I am a physician and surgeon. My age is thirty-seven.

Ques. Where do you reside?

Ans. I have always resided in Hartford.

Ques. Was you acquainted with the late Dr. Horace Wells?

Ans. Yes.

Ques. Have you any personal knowledge of any experiments made by him of the use of anæsthetic agents in surgical operations previous to October 1st, 1846?

Ans. I had no personal knowledge.

Question by — Wales, who appeared for Mrs. Wells. Was you not credibly informed, by members of the medical profession, that Dr. Wells had made a discovery of anæsthetic agents for surgical operations, a year or two before you heard of their use in Boston?

(Objected to.)

Ans. I should say yes.

Question by same. What facts were you informed of the use of these agents?

(Objected to on the ground of being hearsay; and that if Dr. Wells performed any experiments, the persons on whom they were performed should be called on to testify to them.)

Ans. I learned from my intercourse with my medical brethren that Dr. Wells had extracted teeth from persons under the influence of nitrous oxyd gas.

Ques. Had you heard any other name mentioned than Dr. Wells as the discoverer, before you heard of the claim of Morton and Jackson, of Boston?

Ans. I had not.

Question by H. Cornwall. When did you hear of the discovery of Morton or Jackson?

Ans. I cannot say now as to the month or year; but it was some time subsequent to my hearing of the experiments of Dr. Wells.

Ques. by same. Did you ever use nitrous oxyd gas in any of your surgical operations?

Ans. I never have.

Ques. by same. Have you ever used any anæsthetic agent, and what, if any, and when did you first use it?

Ans. I have used a mixture of ether and chloroform, once or twice, about two or three years since. I have used chloroform frequently—soon after it was brought into this country. I never used ether.

Ques. by E. A. Bulkley. Were the matters set forth in the certificate, signed by Dr. Fuller, and other physicians of Hartford, and also by yourself, according to your best knowledge and belief, true. (Objected to.)

Ans. They were.

Ques. by H. Cornwall. At whose suggestion did Lee, Goodrich, Wells, and Burleigh, call on you?

Ans. I cannot say.

Ques. What did Burleigh then say to you?

Ans. He and the others stated they had teeth extracted, or some other operation performed on them, by Dr. Horace Wells.

GURDON W. RUSSELL, M. D.

Dr. BENJAMIN ROGERS. December 6.

Ques. What is your age and occupation?

Ans. I am seventy-three, and a practising physician.

Ques. How long have resided in Hartford?

Ans. Thirteen years.

Ques. Was you acquainted with the late Dr. Horace Wells?

Ans. Yes, but not intimately.

Ques. Have you any personal knowledge of any discovery by him of the use of anæsthetic agents in surgical operations?

Ans. No, sir; I have not.

Ques. Have you ever made use, in your practice, of any anæsthetic agent in surgical operations; if yea, what agent?

Ans. I have never used any.

Ques. Did you ever personally know of the use of nitrous oxyd gas, in any surgical operation, previous to October 1st, 1846?

Ans. No, sir.

Ques. Did you ever know of the use of ether, as an anæsthetic agent in surgical operations, before that time?

Ans. I did not.

Ques. How far was your residence from that of Dr. Wells?

Ans. I think, not quite half a mile.

BENJ. ROGERS.

Dr. GEORGE SUMNER.

Ques. What is your age and occupation?

Ans. Fifty-eight, and a physician.

Ques. How long have you resided in Hartford?

Ans. Thirty-two years.

Ques. Were you acquainted with the late Dr. Horace Wells?

Ans. Slightly.

Ques. Have you any personal knowledge of any discovery made by him, of the use of anæsthetic agents in surgical operations?

Ans. I have no personal knowledge.

Ques. Have you ever made use of nitrous oxyd gas as an anæsthetic agent?

Ans. I have not.

Ques. Have you any knowledge of the use or discovery of ether, as an anæsthetic agent in surgical operations, before October 1, 1846?

Ans. I don't think I have.

Ques. Did you know Dr. S. Fuller and Wm. James Barry?

Ans. I did.

Ques. Are they living?

Ans. No.

Ques. Do you know Drs. E. E. Marcy and D. S. Dodge?

Ans. I do.

Ques. Where do they reside?

Ans. In New York.

Cross-examination.

Ques. Had you ever any conversation with Dr. Wells, on the subject of any anæsthetic agent?

Ans. I had.

Ques. When?

Ans. Soon after his visit to Boston. I think, in January, 1845.

Ques. Did he speak of having discovered the anæsthetic properties of nitrous oxyd gas?

Ans. He did, according to my impression.

Ques. Did he state to you his object in going to Boston?

Ans. I don't think he did.

Ques. Was it generally known and believed, in this community, from and after December, 1844, that Dr. Wells had discovered an anæsthetic agent? (Question objected to.)

Ans. It was a subject of discussion among physicians in this vicinity, and, I think, generally believed.

Ques. Had you, prior to the time referred to in your last answer, ever heard of any discovery of any anæsthetic agent, by any other than Dr. Wells?

Ans. I had.

Ques. To what discoveries do you refer?

☞ Ans. To Beddoes, Davy, and others.

Ques. Did you know or hear of the use of any anæsthetic agent, in surgical operations, prior to the discovery of Dr. Wells?

Ans. I don't think I did.

Direct examination resumed.

Ques. Did you ever know a surgical operation performed, under the influence of any anæsthetic agent, before the fall of 1846; if so, what?

☞ Ans. My impression is I have known alchohol so used.

Ques. When was the matter of Wells's discovery discussed?

Ans. I cannot state the day, or the month, or year. It was soon after mesmerism and laughing gas were brought to notice in this city. I think about 1844 or 1845.

Ques. Was not nitrous oxyd, at that time, considered as a thing of no practical value in surgical operations?

Ans. Before the experiments of Wells, it was so considered. I think, after that, it had a reputation it had not before.

Ques. You say it was generally believed, in this community, after December, 1844, that Wells had discovered an anæsthetic agent. Will you name any person that believed it?

☞ Ans. I got the impression that a good many believed it, but can give no names. I think Dr. Marcy and Dr. Ellsworth, surgeons, believed it.

☞ Ques. by Welch. Was not this discovery a subject of discussion, in your medical meetings, during the years 1845 and 1846?

Ans. It is my impression that it was.

Ques. You state that, after Dr. Wells' experiments, nitrous oxyd gas had a reputation that it had not before. Do you mean by that, that this gas, in consequence of the Doctor's ex-

periments, came to be considered a valuable anæsthetic agent?

Ans. It was more noticed.

Ques. by H. Cornwall. Was nitrous oxyd, at that time to which you refer, considered a valuable anæsthetic agent?

Ans. I cannot answer definitely. It had a growing reputation.

Ques. Do you consider, at this time, that nitrous oxyd is a valuable anæsthetic agent in surgical operations?

Ans. I do not practice surgery. I do not place the confidence in it I do in chloroform.

GEORGE SUMNER.

Dr. S. B. BERESFORD.

Ques. What is your age and occupation?

Ans. I am forty-six, and a physician and surgeon.

Ques. How long have you resided in Hartford?

Ans. About eighteen years.

Ques. Did you know the late Dr. Horace Wells, in 1845 and 1846?

Ans. I knew him as a practising dentist.

Ques. Have you any personal knowledge of any discovery by him, of the use of any anæsthetic agent, in surgical operations, previous to October 1st, 1846?

Ans. I was present at no operation of the kind, and had no personal experience.

Ques. Have you ever in your practice made use of nitrous oxyd gas as an anæsthetic agent; if yea, when first, and who was the patient operated upon?

Ans. Yes; I operated in this city, January 4, 1848, on Mrs. Charles Gabriel, removing, from the neighborhood of her shoulder, a tumor, while under its influence.

Ques. Have you ever made use of nitrous oxyd, in any surgical operation, since?

Ans. No, sir.

Ques. Have you any knowledge of any experiment, or use of any anæsthetic agent, by Dr. Wells, except that derived from hearsay?

Ans. All that I knew was derived from hearsay, previous to the date of this operation.

Cross examination.

Ques. When did you first hear of the discovery, by Dr. Wells, of an anæsthetic agent?

Ans. Two or three years previous to the operation.

Ques. Was not Dr. Wells's discovery a matter of great notoriety and comment, during the years 1845 and 1846?

Ans. Yes, sir; I frequently heard the matter alluded to.

Ques. Was not his discovery the subject of frequent discussion, in your medical meetings, about that time?

Ans. I cannot remember with sufficient distinctness to enable me to answer that question.

Ques. Did you, during the year 1845, hear that any other than Dr. Wells claimed to have discovered any anæsthetic agent?

Ans. No, sir.

Ques. How large was the tumor of which you have spoken?

Ans. From recollection, I should say from five to seven ounces.

Ques. How long was the patient under the influence of the nitrous oxyd gas?

Ans. I should think six or seven minutes under its complete influence. I speak from recollection. The mass was removed in five or six minutes, and she very soon recovered her perception, after it was taken out.

Ques. Was the operation successful and satisfactory?

Ans. It was. The patient felt no pain during the removal of the tumour.

Ques. Did Dr. Wells administer the gas?

Ans. Yes.

Ques. Was not the above operation as successful and satisfactory as any you have ever performed with any other anæsthetic agent?

Ans. It was quite as successful as any, so far as destroying sensibility was concerned.

Ques. Do you know that Dr. Wells was obliged to abandon his profession sometimes, on account of ill health?

Ans. I think I remember hearing Wells make a statement to that effect.

Ques. Did Dr. Wells ever abandon his claim as the first discoverer of an anæsthetic agent?

Ans. Never, to my knowledge.

Ques. Was he not generally regarded by the profession as such discoverer? (Objected to.)

Ans. He was, by the profession in this city.

Direct resumed.

Ques. Can you state that any person of the medical profession, in this city, regarded him as the original discoverer of the use of an anæsthetic agent?

Ans. I cannot state any particular individual; but I know that it was the general opinion of the faculty here, that he was entitled to that credit.

Last part of answer objected to.

Ques. What do you mean by the general opinion of the faculty?

Ans. The only opinion I heard expressed.

Ques. Do you mean to say that before October, 1846, you heard the matter of any discovery of anæsthetic agent, by Dr. Wells, talked of?

Ans. Two or three years before the operation above spoken of, I frequently heard the matter alluded to. I cannot specify dates, nor answer more fully.

Ques. You say the operation you have spoken of was quite as successful as any you ever performed, so far as destroying sensibility was concerned. In what was the operation not as successful?

Ans. The patient was very faint and depressed, for about half an hour after recovering her perception.

Ques. Was not the administration of the gas in this case attended with asphyxia?

Ans. I think not.

Ques. What was the appearance of the face of the patient?

Ans. At this distance of time I cannot remember, to speak with precision.

Ques. Have you any idea that Dr. Wells ever perfected, and brought into general use, nitrous oxyd gas as an anæsthetic agent in surgical operations?

Ans. No, sir; I do not think he did.

Ques. Is nitrous oxyd, in your judgment, a valuable anæsthetic agent in dental and surgical operations?

Ans. I have never used it, but in the case above alluded to, and give a decided preference to chloroform, in surgical operations.

L. B. BERESFORD, M. D.

DR. ARCHIBALD WELSH. November 30.

Ques. What is your age and occupation?

Ans. I am fifty-eight; am a physician and surgeon.

Ques. Where do you reside, and how long have you resided there?

Ans. I reside in Hartford, and have done so for about four years.

Ques. Where had you resided for five years previous to coming to Hartford?

Ans. In Wethersfield, four miles south of Hartford.

Ques. Was you acquainted with the late Dr. Horace Wells?

Ans. I was.

Ques. Have you any personal knowledge of any discovery by him of the use of anaesthetic agents in surgical operations?

☞ Ans. I have no personal knowledge of any experiments of that kind.

Ques. In your practice, have you ever made use of any anaesthetic agent in surgical operations; if yea, what?

☞ Ans. I have. I have used sulphuric ether, and chloroform, and a combination of the two.

Ques. Can you state when you first made use of these agents?

Ans. I cannot state definitely. About five or six years.

Ques. Have you ever used nitrous oxyd gas in surgical operations?

Ans. I never have.

Ques. Why not?

☞ Ans. I used nothing until chloroform and ether were introduced, and they are more easy of application.

ARCHIBALD WELSH, M. D.

HON. JAS. DIXON.

Ques. What is your age and occupation?

Ans. I am thirty-eight. I am an attorney by profession.

Ques. Where do you reside?

Ans. In Hartford.

Ques. Were you acquainted with the late Dr. Horace Wells?

Ans. I was.

Ques. Have you ever witnessed any experiments by him in the use of any anaesthetic agent in surgical operations?

☞ Ans. I never witnessed any, but was told by Wells he had extracted teeth without pain. I think by the use of nitrous oxyd gas.

Ques. Did you ever *apply to* Wells to administer the gas to you for the purpose of having a *tooth* extracted?

Ans. I think not.

Ques. Did you ever have a conversation with Dr. Wells in regard to the use of nitrous oxyd, in which he discouraged its use by you in having teeth extracted; if so, state fully the conversation?

Ans. I had repeated conversations with Riggs and Wells. Think both said that for so slight an operation as pulling teeth they would not advise its use, but that in severe surgical operations, as amputation, it should be used, but in slight operations it was not best to run the risk of using the gas. Wells said its use would entirely prevent pain, and he had extracted thirteen teeth with safety and without pain. These conversations were in May, 1845, and subsequent. Wells spoke of it as a recent discovery by him; said he had announced it to some members of the Boston Faculty. I think Jackson and Morton were mentioned by name, but am not positive. He spoke of an experiment before a class in Boston, in which he did not succeed as he had in Hartford, and the witnesses of his experiment discouraged him.

Ques. Did Dr. Wells tell you that he had met with only partial success in the use of the nitrous oxyd gas, and had abandoned its use?

Ans. I think he never did.

Ques. Have you not previously said to any one that Dr. Wells told you so?

Ans. I never have.

Ques. Did Dr. Wells ever inform you that he received the idea of using nitrous oxyd gas to prevent pain in extracting teeth from Dr. Cooley?

Ans. No. He said he discovered it himself.

Ques. by E. A. Bulkley, counsel for Mrs. Wells. Did Dr. Wells claim to you that he had discovered an agent that would relieve pain in surgical operations; and what did he say of it?

Ans. In May, 1845, he claimed that he had discovered an agent that would work a revolution in surgical operations, entirely relieving them of all pain.

Ques. Did you have a conversation with Dr. Wells relative to a letter to Dr. Morton, dated October 20th, 1846; and what did he say? (Objected to.)

Ans. He said he did not intend by that letter to abandon his claim of discovery. That he wrote it hastily, considering Morton his friend, without understanding that the claim of Morton was substantially identical with his. He claimed Morton treated him ill in getting the information from him and then claiming the invention himself. He said Morton would never have thought of it if he had not announced the discovery.

See the correspondence here admitted by Wells to be genuine.

Answer objected to, as the witness was in conversation during the time of giving the answer with E. A. Bulkley,

counsel for Mrs. Wells, and that the conversation was with Wells was after a controversy had arisen.

Ques. by same. Was any fact in the above answer, objected to, suggested to you by said counsel?

Ans. There was not.

Ques. by same. Did Dr. Wells inform you that he had made use of other anæsthetic agents than nitrous oxyd gas; and if so, at what time?

Ans. He frequently said he had used ether before Morton's pretended discovery. The conversations in regard to ether were after Morton's petition to Congress.

Ques. by H. Cornwall. Did you suggest to the counsel for Mrs. Wells, the above questions that he has put to you here in this room?

Ans. I told him what I knew, and he put his questions.

Ques. What year was it, while you were a member of Congress, that you volunteered to make claim for Dr. Wells, in opposition to Dr. Morton's memorial to Congress?

Ans. During the 29th Congress, having personal knowledge that Dr. Wells made the discovery. Under a sense of official duty, I volunteered to assert the rights of Dr. Wells, who was my constituent.

Ques. Have you any personal knowledge that Dr. Wells made any discovery of the use of any anæsthetic agent in surgical operations, previous to October 1st, 1846?

Ans. None except what was derived from conversation with Dr. Wells and Dr. Riggs.

Ques. Do you mean to say that Dr. Wells, in 1847, told you that he had used ether, in any surgical operation, previous to October 1st, 1846?

Ans. I think he said he or Dr. Marcy applied it in a surgical operation, performed by Marcy, previous to that date, but am not confident as to date.

Ques. Were these latter conversations with Wells, while he was instructing you as to his claims, in opposition to Morton's before Congress?

Ans. Not wholly, but some part were while he was consulting me as his representative in Congress.

Ques. What part was not?

Ans. Much of the conversation was in reply to inquiries put by me, to satisfy myself on a subject of so much scientific interest.

Ques. by H. Cornwall. Why did Wells speak to you on the subject of the letter to Dr. Morton?

Ans. I had seen the letter among Dr. Morton's proofs, and asked him what it meant.

JAMES DIXON.

See answer to
4th Question,
ante, and an-
swer to the fol-
lowing hereto.

EBENEZER FLOWER. December 7.

Ques. What is your age and occupation?

Ans. I am 65. I am a coal dealer.

Ques. Was you acquainted with the late Dr. Horace Wells?

Ans. I was.

Ques. Are you the mayor of the city of Hartford, and how long have you been such?

Ans. I am, and have been so for a little over a year and a half.

Ques. Have you any personal knowledge of any discovery by Dr. Wells of the use of any anæsthetic agents in surgical operations?

Ans. I have none.

Cross-examined.

Ques. by Bulkley. Was it not the general sentiment of the community, so far as you know, that Dr. Wells was the first discoverer of an agent to produce insensibility to pain in surgical operations? (Objected to.)

Ans. So far as I recollect, it was the opinion of the people here that he was the first discoverer.

Ques. Have you conversed with Dr. Wells upon that subject; and if so, what did he say?

Ans. I have heard Dr. Wells say, repeatedly, that he was the first discoverer.

Ques. Can you now state how early he made that claim?

Ans. I am not able to give dates, but think it was soon after the subject was agitated.

Direct examination resumed.

Ques. Did you ever hear of the use of any anæsthetic agent in surgical operations, before October, 1846?

Ans. I am not able to say distinctly whether I have or not.

Ques. Will you say that the conversations to which you have alluded, with Dr. Wells, were not after October, 1846?

Ans. It appears to me it was longer ago; but I have no means of fixing the date.

Ques. If these conversations were not after Dr. Morton had perfected his discovery, and the matter had been agitated by reason thereof, how did Dr. Wells come to say that he was the first discoverer?

Ans. That is more than I can say.

EBENEZER FLOWER.

HON. THOS. H. SEYMOUR.

Ques. What is your age, residence, and official stations?

Ans. I am 45, reside in Hartford, and am Governor of the State of Connecticut.

Ques. Were you acquainted with the late Dr. Wells, and for how long previous to his death?

Ans. I think I knew him about ten years.

Ques. Have you any personal knowledge of any discovery by him of the use of anæsthetic agents in surgical operations?

Ans. I have not.

Ques. Have you any knowledge on this, except from hearsay?

Ans. I have not.

Ques. by E. A. Bulkley. Was it not said, in 1844, in November, that Dr. Wells had made such a discovery?

Ans. It was.

Direct examination resumed.

Ques. Can you state that you ever heard anything said, with regard to the use of an anæsthetic agent, in November, 1844?

Ans. I cannot state more than I have. I may be mistaken in the year. It was in 1844 or 1845.

THOS. H. SEYMOUR.

HON. JOSEPH TRUMBULL.

Ques. What is your age and place of residence?

Ans. I am seventy years old this day. My residence is in Hartford.

Ques. Was you acquainted with the late Dr. Horace Wells?

Ans. Partially so; not intimately.

Ques. Have you any personal knowledge of any discovery by him of the use of anæsthetic agents in surgical operations?

Ans. I had no knowledge except by common report.

Ques. Did you ever hear any such report before October, 1846?

Ans. I cannot specify as to time. I cannot say that I did.

Ques. Are you acquainted with Dr. W. T. G. Morton?

Ans. I have never seen him.

Cross-examination.

Ques. Did you hear of Dr. Wells's discovery of an anæsthetic agent before you heard, of a similar discovery by any one else?

Ans. According to my recollection, what I heard respecting Dr. Wells's discovery, was anterior to anything I heard in favor of any one else.

Direct examination.

Ques. Do you mean to have it understood, by your last answer, that no one else had made such discovery before you heard the report to which you have alluded?

Ans. I mean to say that no one had to my knowledge.

JOS. TRUMBULL.

THOS. ROBERTS.

Ques. What is your age and occupation?

Ans. My age is 58. I am a stove dealer and tin and sheet iron manufacturer.

Ques. Were you acquainted with the late Dr. Horace Wells; and if so, how long?

Ans. I think I became acquainted with him in 1843 or 1844.

Ques. Since that time, have you had any business connexion with him, and when?

Ans. I have done his work for two or three years. I think in March, 1846, we went into partnerthip in the shower bath business.

Ques. How long did Dr. Wells continue in the shower bath business?

Ans. He and I continued in business about two months, before we dissolved. Dr. Wells continued in it alone till November, 1846, when I bought him out.

Ques. What were the circumstances that led to your separation in business?

Ans. After we had been in business a short time, he asked me how much capital I was going to put in. I told him I did not expect to put in any, as if the thing was good for anything it would support itself by selling rights. He said he had called in his money and should put in about \$5,000, and showed me his bank book. He said he had already agreed for 500 tubs. I told him it was a wild operation, and I should have nothing to do with it. The next day, or soon after, he called again, and asked how much capital I was

See, in connection with this deposition, the pretence that Wells had neither health nor funds to prosecute his experiments.

going to put in. I answered as before. I had no capital to put in, and should not if I had. This difference about the capital led to our separation. We had a warm discussion, and the matters between us was left to arbitration.

Ques. Can you state what business Dr. Wells was engaged in in the year 1845?

Ans. I cannot definitely. In 1844 or 1845 he got up a coal sifter, of which we made a number.

Ques. Do you know of his getting up a panorama or bird exhibition, or exhibition of natural history; and if so, when?

Ans. I only know by hearsay.

Ques. by E. A. Bulkley, counsel for Mrs. Wells. Was not Dr. Wells pursuing his dental business in the time above referred to?

Ans. I never was in his office. My impression was he was pursuing his dentist business as usual.

Ques. by Mr. Cornwall. Do you know that Dr. Wells, in 1845 or 1846, was at all engaged in dental business?

Ans. I do not.

Ques. by E. A. Bulkley. Do you know he had an office?

Ans. I do.

Ques. by same. From what you saw is it your belief that he was pursuing his dental business? (Objected to.)

Ans. Yes.

Ques. by H. Cornwall. Do you know Dr. Wells was actively engaged in business, in 1845 and 1846?

Ans. He was actively engaged in the shower bath business in 1846. As to the dental business, I cannot say more than I have already said.

THOS. ROBERTS.

Dr. W. S. CRANE.

Ques. What is your age, residence, and occupation?

Ans. I am 51; reside in Hartford, and have been a dentist for the last 17 years; have resided in Hartford 16 years.

Ques. Was you acquainted with the late Dr. Horace Wells?

Ans. I was.

Ques. Have you any personal knowledge of any discovery by him of the use of any anæsthetic agent in dental and surgical operations?

Ans. No.

Ques. Have you, in your practice as a dentist, ever administered nitrous oxyd in dental operations?

Ans. I once administered it to Dr. Warner. He brought a bag, which he said, and which I supposed contained nitrous oxyd, from Dr. Wells's office, and under its influence I extracted a number of his teeth. I think four.

Ques. When was this?

Ans. I think in March, 1845.

Ques. In your judgment, is nitrous oxyd gas a valuable and efficient anæsthetic agent in dental operations?

Ans. I should say no.

W. S. CRANE.

Dr. JAS. M. GREENLEAF.

Ques. What is your age, residence, and occupation?

Ans. Age 33; residence Hartford; occupation a dentist.

Ques. How long have you been a dentist in Hartford?

Ans. About 16 years.

Ques. Have you ever made use of nitrous oxyd gas in your dental business, to prevent pain in extracting teeth?

Ans. No, sir.

Ques. Have you ever seen it administered; and if so, by whom and where?

Ans. I saw it administered once, by Dr. S. A. Cooley, which produced vomiting. This was at my office.

Ques. Was the experiment entirely unsuccessful?

Ans. Yes.

Cross-examination.

Ques. Have you a brother, who was a dentist in Hartford, who has used it?

Ans. I have.

Direct examination resumed.

Ques. Do you know he used it more than once?

Ans. I do not know how many times he used it.

Ques. Who instructed him in the use of it?

Ans. Dr. S. A. Cooley.

J. M. GREENLEAF.

Dr. HIRAM PRESTON.

Ques. What is your age, residence, and occupation?

Ans. Age, 44; residence, Hartford; am a dentist.

Ques. How long have you practiced dentistry?

Ans. Between nine and ten years.

☞ Ques. In your practice, have you ever made use of nitrous oxyd as an anæsthetic agent?

Ans. I have not.

Ques. Have you ever made use of any anæsthetic agent in dental operations; if yea, what?

☞ Ans. I have used chloroform, chloroform and sulphuric ether combined, in equal proportions, and chloric ether.

Cross-examined by Welch.

Ques. How long have you practiced dentistry in Hartford?

Ans. It will be six years the first of next April.

Ques. Did you reside in Hartford before that time?

Ans. No.

Ques. When was the first time you ever made use of any anæsthetic agent?

☞ Ans. I think about four years.

Ques. Did you ever see nitrous oxyd gas administered, for anæsthetic effect, prior to your opening an office in this city; if yea, when and by whom?

Ans. I never had.

Ques. by H Cornwall. Where had you resided for the four years next prior to your coming to Hartford?

Ans. The two next preceding, within a month or two, were spent in Granby, in this county, and the two previous years in Georgia, and in travelling.

HIRAM PRESTON.

Dr. CYRREL BULLOCK.

Ques. What is your age, residence, and occupation?

Ans. My age is 39; reside in Hartford; my occupation a dentist.

Ques. How long have you been in the practice of dentistry in Hartford?

Ans. About ten years.

Ques. Did you know the late Horace Wells?

Ans. I did.

☞ Ques. Have you ever, in your practice, made use of nitrous oxyd to destroy pain?

Ans. I never have.

Ques. Have you ever made use of any anæsthetic agent in dental operations; if yea, what?

☞ Ans. I have used chloroform, but no other.

Ques. Have you ever seen nitrous oxyd administered for the purpose of extracting teeth; if yea, about what time, by whom, and where, and was it successful?

Ans. I have, about the year 1846 or 1847, at the house of Mr. P. Holt, in this city, by S. A. Cooley. It was not successful. It was administered that I might extract some teeth, but it did not produce insensibility, and I did not extract the teeth.

Ques. What was the effect produced on the patient?

Ans. She appeared wild and restless.

CYRREL BULLOCK.

UNITED STATES OF AMERICA, }
District of Connecticut. } ss.

I, Erastus Smith, a commissioner duly appointed by the Circuit Court of the United States, for the District of Connecticut in the Second Circuit, under and by virtue of the Acts of Congress, entitled "An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States," passed February 20th, 1812, and the Act of Congress entitled "An Act, in addition to an Act, entitled 'An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States,' " passed March 1st, 1817, and the Act, entitled "An Act to establish the Judicial Courts of the United States," passed September, 24th, 1789, *do hereby certify*, that the reason for taking the foregoing deposition is, and the fact is, the witness are material and necessary in the cause in the caption of the said deposition named.

I further certify, that a notification of the time and place of taking the said depositions, signed by me, was made out and served on the Elizabeth W. Wells and Charles Wells, to be present at the taking of the depositions, and to put interrogatories, if he or they might think fit.

I further certify, that on the 24th day of November, in the year of our Lord one thousand eight hundred and fifty-two, and divers subsequent days, I was attended by counsel for petitioner and for Mrs. Wells, and by the witnesses, who were of sound mind and lawful age, and the witnesses by me first carefully examined and cautioned, and sworn to testify the truth, the whole truth, and nothing but the truth, and the depositions were by me reduced to writing, in the presence of the witnesses, and from their statement, and after carefully reading the same to the witness, they severally subscribed the

same, in my presence. I have retained the said deposition in my possession, for the purpose of sealing the same with my own hand and forwarding to Congress, for which the same were taken.

And I do further certify, that I am not of counsel nor attorney for either of the parties in the said deposition and caption named, nor in any way interested in the event of the cause named in the said caption.

In testimony whereof, I have hereunto set my hand and seal,
this tenth day of December, in the year of our
[L. s.] Lord one thousand eight hundred and fifty-two,
and of the Independence of the United States
the seventy-seventh.

ERASTUS SMITH,
*United States Commissioner, duly appointed
by the Circuit Court of the United States, for the
District of Connecticut in the Second Circuit.*

UNITED STATES OF AMERICA:

DISTRICT OF CONNECTICUT,
City of Hartford, and State of Connecticut. } ss.

BE IT REMEMBERED, That on the 22d, 23d, 24th and 26th days of November, in the year of our Lord one thousand eight hundred and fifty-two, I, Erastus Smith, a Commissioner, duly appointed by the Circuit Court of the United States, for the District of Connecticut, in the Second Circuit, under and by virtue of the Acts of Congress, entitled "An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States," passed February 20th, 1812, and the Act of Congress, entitled "An Act, in addition to an Act, entitled 'An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States,'" passed March 1st, 1817, and the Act, entitled "An Act to establish the Judicial Courts of the United States," passed September 24th, 1789, did call and cause to be and personally appear before me, at my office at Hartford, in the City of Hartford, in the said District of Connecticut, in the State aforesaid, Miles A. Tuttle, John W. Bull, and others, to testify and the truth to say, on the part and behalf of the petitioner, in a certain matter now depending and undetermined, in the Congress of the United States, at Washington, wherein W. T. G. Morton is petitioner or memorialist. And the said witnesses having been by me

first cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy aforesaid, I did carefully examine the said witnesses, and they did thereupon depose, testify, and say as follows, viz :

MILES A. TUTTLE.

Ques. What is your age and occupation ?

Ans. My age is forty-nine, and I am a merchant.

Ques. Were you acquainted with Dr. H. Wells, late of Hartford, deceased ?

Ans. I had a partial acquaintance with him ; I was not intimately acquainted with him.

Ques. Have you any personal knowledge of any discovery of the late Dr. Wells of the use of any anæsthetic agent in surgical operations ?

Ans. I had no personal knowledge.

Ques. Was you a member of the Common Council of the City of Hartford, March 21, 1852 ?

Ans. I was.

Ques. Was you present at the meeting of the Council, March 21, 1852 ?

Ans. I was, if that was the evening on which resolutions were passed relating to Dr. Wells's discovery.

Ques. Did you act on said resolutions ?

Ans. I did.

Ques. By E. A. Bulkley, counsel for Elizabeth W. Wells. On what information did you act ?

Ans. I acted on information obtained from others, and my own belief.

Ques. by same. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting his discovery ?

Ans. I was told so ; I had no personal knowledge. I knew he went to France, and was informed he went for that purpose.

Ques. By H. Cornwall. From whom did you get any information for your action in the Common Council ?

Ans. From Alderman Grant and Alderman Hudson, and I think others of the Council, but do not now recollect names.

Ques. by same. Do you not know that Dr. Wells's business in France was to purchase pictures ?

Ans. I do not.

M. A. TUTTLE.

See their depositions. No personal knowledge.

JOHN W. BULL.

Ques. What is your age and occupation?

Ans. My age is fifty-two, and I am a merchant.

Ques. Was you acquainted with the late Dr. Horace Wells?

Ans. I had a slight acquaintance with him—merely on business.

Ques. Have you any personal knowledge of any discovery of the late Dr. Wells of the use of any anæsthetic agent in surgical operations?

Ans. I had none.

Ques. Was you a member of the Common Council of the City of Hartford, March 21, 1852?

Ans. Yes.

Ques. Was you present at the meeting of the Council, March 21, 1852?

Ans. Yes.

Ques. Were there resolutions passed at that meeting, relative to any discovery of Dr. Wells?

Ans. There was.

Ques. Did you act on said resolutions?

Ans. I did.

Ques. If you had no personal knowledge of any discovery by Dr. Wells, upon what did you base your action?

See their depositions.

Ans. From information given by Alderman Grant and Alderman Hudson, and what I had seen published in the papers relative to his experiments with Dr. Riggs and others, I think.

Ques. Did you ever see a statement published in any paper, of any experiment performed by Dr. Wells upon any person, previous to October, 1846?

Ans. I do not recollect the dates, and have no means of judging.

Ques. by E. A. Bulkley. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting his discovery?

Ans. I had not, in particular; I knew he had gone to France, and I supposed for that object.

Ques. Did Dr. Wells tell you for what purpose he had been to France?

Ans. No, sir; I had no conversation about it.

Ques. by H. Cornwall. When did Dr. Wells visit France?

Ans. I cannot now say.

Ques. by same. In what was he engaged after his return?

Ans. I cannot now say.

J. W. BULL.

CHARLES BENTON.

Ques. What is your age and occupation?

Ans. I am fifty-one years of age, and am a soap and candle manufacturer.

Ques. Was you acquainted with the late Dr. Wells?

Ans. I had no acquaintance. I knew him.

Ques. Have you any personal knowledge of any discovery by him of the use of anæsthetic agents in surgical operations?

Ans. I have not.

Ques. Were you a member of the Common Council of the City of Hartford, March 21, 1852, and was you present at the meeting of the Council that day?

Ans. I was.

Ques. Did you act on the resolutions before the Council, relating to Dr. Wells?

Ans. I did.

Ques. On what information did you act?

Ans. From the information of members of the Council.

Ques. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. I had not.

Ques. by E. A. Bulkley. Had you any information from others?

Ans. I had.

CHARLES BENTON.

SAMUEL ROCKWELL.

Ques. What is your age and occupation?

Ans. I am fifty-four years old, and a merchant.

Ques. Was you acquainted with the late Dr. Wells?

Ans. I knew him by sight; had no acquaintance with him.

Ques. Have you any personal knowledge of any discovery by him of the use of anæsthetic agents in surgical operations?

Ans. I had not.

Ques. Were you a member of the Common Council of the City of Hartford, March 21, 1852, and was you present at the meeting of the Council that day?

Ans. I was there at the time resolutions were passed respecting the discovery of Dr. Wells, and acted upon them.

Ques. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. I had not.

Ques. On what information did you base your action in the Common Council?

See their depositions.

Ans. Mostly from what I heard said that evening, by Alderman Grant and Alderman Hudson, and, I think, several others, members of the Council—I do not recollect who they were.

SAMUEL ROCKWELL.

P. F. ROBBINS.

Ques. What is your age and occupation?

Ans. I am forty-five, and am a cabinet manufacturer.

Ques. Was you acquainted with Dr. H. Wells, late of Hartford, deceased?

Ans. I was.

Ques. Have you any personal knowledge of any discovery by him of the use of anæsthetic agents in surgical operations?

Ans. He said to me, in my office, that he had got hold of something by which he could take my teeth out, without my wincing; he did not tell me what it was.

Ques. When did he tell you this?

Ans. I think it was before he went to Boston, and tried experiments there.

Ques. At any conversation with Dr. Wells, did he tell you from whom he got this idea?

Ans. No, sir.

Ques. Did he state to you anything farther?

Ans. No, sir.

Ques. Did you have any conversation with him in reference to this matter, after his return from Boston?

Ans. No, sir.

Ques. Who was present at this conversation?

Ans. I do not recollect any one?

Ques. Was the conversation to which you have alluded, before or after Wells got up a shower bath?

Ans. I think, before; I think he came in to get a spring for his shower bath, at this time, but may be mistaken.

Ques. Were you a member of the Common Council of the City of Hartford, March 21, 1852, and was you present at the meeting of the Council that day?

Ans. Yes.

Ques. Did you act on the resolutions before the Council, relating to Dr. Wells?

Ans. I did.

Ques. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. No more than from current reports; I had no personal knowledge.

Ques. Do you know what Dr. Wells was engaged in the years 1845, 1846, and 1847?

Ans. A part of the time in dentistry business; as to the rest, I cannot say. He was out of health a part of the time.

Ques. What part of the time was he engaged in dental business?

Ans. I could not say definitely.

Ques. Was it a large or small portion of the time?

Ans. I should think a small portion.

Ques. by E. A. Bulkley.—Had you heard of Wells's discovery before you heard of Dr. Morton?

Ans. He made the statement I have mentioned before I heard of Dr. Morton.

P. F. ROBBINS.

NOAH WHEATON.

Ques. What is your age and occupation?

Ans. My age is forty-five; my occupation a carpenter and house builder.

Ques. Was you acquainted with the late Dr. Wells, of Hartford?

Ans. I was.

Ques. Have you any personal knowledge of any discovery by him of the use of anæsthetic agents in surgical operations?

Ans. I had no personal knowledge, but I often noticed it in the journals; I heard the citizens speak of it.

Ques. Did you ever see a description of any experiment published in any paper, as having been done by Dr. Wells, previous to October, 1846?

Ans. I could not say as to dates; my impression is, that I have previous (to) that time.

Ques. In what paper did you see it, and on whom was the experiment performed?

Ans. I could not say.

Ques. Was you a member of the Common Council of the City of Hartford, March 21, 1852, and was you present at the meeting that day?

Ans. I was present when the resolutions, relating to Dr. Wells, passed, and I acted upon them.

Ques. Upon what testimony did you act?

Ans. On the statements of Aldermen Grant and Hudson, and Councilman P. D. Stillman, and what I had seen in the papers previously.

Ques. Had you ever heard anything, or seen anything, published previous to 1st of October, 1846?

Ans. Could not say as to dates.

Ques. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. Previous to his death, and just after I noticed statements in the papers, just after his death, I recollect particularly of seeing statements in the Journal of Commerce of his discovery being before Medical Societies, particularly in a society in France. I had no personal conversation with Wells nor did I see any experiments.

N. WHEATON.

BENONI A. SHEPHERD.


Ques. What is your age and occupation?

Ans. Fifty-five—merchant.

Ques. Were you acquainted with the late Dr. Wells?

Ans. I was.


Ques. Have you any personal knowledge of any discovery made by him of the use of anæsthetic agents in surgical operations, previous to October 1st, 1846?

Ans. I have not. 

Ques. Was you a member of the Common Council of the city of Hartford, March 21st, 1852? and was you present at the meeting that day? and did you act on the resolutions relating to the discovery of Dr. Wells?

Ans. I was a member, and present, and acted on said resolutions.

Ques. On what testimony did you act?

Ans. From information received from different individuals,  from the statements in the newspapers, from the statements of Aldermen Grant and Hudson, and I think others of the Council.

Ques. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. I had not.

BENONI A. SHEPHERD.

EDMUND B. KELLOGG.


Ques. What is your age and occupation?

Ans. My age is forty-three. I am a manufacturer of piano fortes?

Ques. Were you acquainted with the late Dr. Wells?

Ans. I was.


Ques. Have you any personal knowledge of any discovery made by him of the use of anæsthetic agents in surgical operations?

Ans. I have not. 

Ques. Was you a member of the Common Council of the city of Hartford, March 21st, 1852? and was you present at their meeting that day? and did you act on the resolutions relating to the discovery of Dr. Wells?

Ans. I was a member, was present at the meeting, and acted on the resolutions.

Ques. On what testimony did you act?

Ans. I acted on the information given by Aldermen Grant  and Hudson, and I think of Alderman Robinson, and some others of the Council.

Ques. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. I had not.

EDMUND B. KELLOGG.

I. A. BRAGAN.

Ques. What is your age and occupation?

Ans. Age, thirty-one—profession, a merchant.

Ques. Was you acquainted with the late Dr. Wells?

Ans. I was.

Ques. Have you any personal knowledge of any discovery made by him of the use of anæsthetic agents in surgical operations?

Ans. I had not.

Ques. Was you a member of the Common Council of the city of Hartford, March 21st, 1852? and was you present at the meeting that day?

Ans. I was a member of the Common Council, but was not present at any time when any resolutions were discussed or passed relative to the discovery of Dr. Wells.

ISAAC A. BRAGAN.

THOMAS STEELE.

Ques. What is your age and occupation?

Ans. My age is forty. I am a watch-maker.

Ques. Were you acquainted with the late Dr. Wells?

Ans. I was, intimately.

Ques. Have you any personal knowledge of any experiments made by him of nitrous oxyd gas, or any other agent for the purpose of rendering the human body insensible to pain in surgical operations, previous to October 1st, 1846?

Ans. I have never seen any operations or experiments. I had conversations with Dr. Wells, about his extracting teeth without pain, previous to his going to Boston to make experiments.

Ques. Can you state the conversation?

Ans. I cannot state the precise conversation, nor any more than I have above stated.

Ques. Did he state to you, in this or any other conversation, from whom he got the idea of pulling teeth without pain?

Ans. No, sir; but spoke of it as his own discovery; at least, I got the impression it was his own discovery, from what was said; but I cannot give the conversation.

Ques. Do you know, or did you ever hear, of any experiment performed by Dr. Wells, after his return from Boston, and previous to the 1st of October, 1846?

Ans. I cannot recollect dates; I cannot state positively; my impression is that I did.

Ques. Upon whom?

Ans. I cannot state.

Ques. Was you a member of the Common Council of the city of Hartford, March 21st, 1852? and was you present at the meeting that day? and did you act on the resolutions relating to the discovery of Dr. Wells?

Ans. I was a member, and present, and acted on said resolutions.

Ques. On what testimony did you then act?

Ans. Principally on my own previous information; but some light was thrown on the subject by the remarks of Aldermen Grant and Hudson.

Ques. Had you any previous information, except that you have spoken of? and if so, what?

Ans. The discovery of Wells was a matter of conversation in community. It was a matter I heard talked of a good deal.

Ques. Can you tell whether this conversation you speak of in community was in the fall of 1846? or if not, in what year was it?

Ans. I cannot; I have no means of ascertaining dates.

Ques. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. No, sir. There was conversation after his death to that effect.

Ques. by Dr. Ellsworth, for Mrs. Wells. What did Wells say of his success in Boston, after his return, and the opinions expressed by others?

Ans. Wells said some regarded it with favor, but others scouted the idea. I think he mentioned one by name of Jack-

son, who ridiculed the subject; think he was connected with some institution as chemist or scientific man. I think he mentioned others who ridiculed his discovery or experiments.

Ques. by same. Did you see any person who had been operated upon by Wells, or any dentist in Hartford, after Wells's visit to Boston, and the date of Morton's claim, in 1846?

Ans. I cannot say.

Ques. Was it not a fact notorious that teeth were extracted without pain, for some time after Dr. Wells returned from Boston?

Ans. My impression is it was.

Ques. by same. Did Dr. Wells say that he delivered a lecture before a medical class in Boston?

Ans. He spoke of delivering a lecture, or making experiments, or something of that character, before some medical men.

Ques. by H. Cornwall. In this conversation, after his return from Boston, what did Dr. Wells say, if anything, in relation to the failure of the experiment he had made there?

Ans. I do not recollect he said anything, more than what I have before stated.

☞ Ques. Do you know personally of a single tooth being pulled in Hartford, without pain, after Wells returned from Boston?

Ans. I do not.

THOMAS STEELE.

NEWTON CASE.

Ques. What is your age and occupation?

Ans. I am forty-five, and a publisher.

Ques. Was you acquainted with the late Dr. Wells?

Ans. I was well acquainted with him.

Ques. Have you any personal knowledge of any discovery made by him of the use of anæsthetic agents in surgical operations, previous to October 1st, 1846?

Ans. I have no personal knowledge, though I heard the subject talked of, previous to that date. I heard Dr. Crane speak of the article used at that time, discovered by Dr. Wells, to prevent pain in extracting teeth. I think it was in

1845. The conversation was at Crane's office, where my daughter had a tooth extracted which pained her much. Crane said if he was to pull another, he would give her the gas.

Ques. Why do you think this conversation with Crane was in 1845?

Ans. My daughter is now nineteen, and I think when the tooth was extracted she could not have been over ten or eleven years old.

Ques. Is this your only reason for thinking it was 1845? if not, what other reason can you give?

Ans. I do not know I can give any more definite reason. I am not positive as to the year, but may have some memorandum by which I can fix the date.

Ques. Do you know from whom Dr. Wells received his idea of pulling teeth without pain?

Ans. I do not know. I have heard Dr. Wells speak of his experiments.

Ques. Was you a member of the Common Council of the city of Hartford, March 21st, 1852? and was you present at the meeting that day? and did you act on the resolutions relating to the discovery of Dr. Wells?

Ans. I was a member, and present, and acted on said resolutions.

Ques. On what testimony did you then act?

Ans. On statements made to the Council, by Aldermen Grant and Hudson, and what I had previously heard about it.

Ques. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. I had none, except Dr. Wells told me, after his return from Europe, that he had presented his claim to some society or scientific body in Paris.

Ques. Are you sure he told you that he had presented his claims to any society in Paris?

Ans. I am positive.

Ques. What was the business of Dr. Wells, in 1845, 1846, and 1847?

Ans. I cannot say definitely. He sold out his dental business; was engaged for some time in getting up a panorama; I cannot say how long. He afterwards resumed his dental business; I don't recollect at what time. I know he was in the bath business; I think for one season.

Ques. by Dr. Ellsworth, for Mrs. Wells. Did you know or hear of any other discoverer than Dr. Wells, of the gas for preventing pain?

Ans. I did not, until Dr. Morton's claim was presented to Congress, to my present recollection.

NEWTON CASE.

PHILO S. NEWTON.

Ques. What is your age and occupation?

Ans. I am forty-one, and a gun-maker.

Ques. Were you acquainted with the late Dr. Wells?

Ans. Slightly.

Ques. Have you any personal knowledge of any discovery made by him of the use of anæsthetic agents in surgical operations, previous to October 1st, 1846?

Ans. I had personally seen no experiments, or had any knowledge of the matter, except such as was derived from report, and I cannot fix the date of the report.

Ques. Was you a member of the Common Council of the city of Hartford, March 21st, 1852? and was you present at the meeting that day? and did you act on the resolutions relating to the discovery of Dr. Wells?

Ans. I was a member, and present, and acted on said resolutions.

Ques. On what testimony did you then act?

Ans. I acted on the common reports of the day, and the statement of some members of the Council, then present.

Ques. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. I had not.

P. S. NEWTON.

P. D. STILLMAN.

Ques. What is your age and occupation?

Ans. My age is forty-three. My occupation is a manufacturer and dealer in hats, caps and furs.

Ques. Was you acquainted with the late Dr. Wells?

Ans. I was, intimately.

Ques. Have you any personal knowledge of any discovery made by him of the use of anæsthetic agents in surgical operations?

Ans. I had.

Ques. What knowledge had you that he made such discovery?

Ans. About the year 1844, I was frequently in Dr. Wells's room; he was making experiments; some in mesmerism; also in gas. One day, on invitation, I think I went to his office, and he administered gas to J. Gaylord Wells, and extracted a tooth apparently without pain. Immediately after the tooth was out, J. G. Wells jumped up—clapped his hands—seemed excited. Dr. Wells asked J. G. Wells if it hurt him. J. G. said he did not feel it; should not know it had been taken out. Dr. Wells also seemed excited—expressed himself as successful, and seemed exceedingly pleased. I was very often in Dr. Wells's room. I have a slight recollection of two other cases in his office in which gas was administered, and I think I saw a young man have a tooth out under its influence. I do not remember his name. I suppose it was without pain. I have no dates, and cannot give the times.

Ques. What did Dr. Wells administer to J. Gaylord Wells?

Ans. I supposed it was some kind of gas; do not know that I heard it named. I supposed it was what they called laughing gas.

Ques. How long did J. G. Wells continue in the excited state you have spoken of, and what did he do besides clap his hands?

Ans. The excitement seemed to pass off immediately. I do not recollect he did anything else. I think he clapped his hands two or three times, and burst into laughter.

Ques. Can you state positively whether you ever saw any other experiment by Dr. Wells?

Ans. I know I saw some other, but can give no name.

Ques. When?

Ans. About the same time, and subsequent to J. G. Wells.

Ques. What month in 1844 was the experiment you speak of, on J. Gaylord Wells, performed?

Ans. I can't say.

Ques. Was it in December?

Ans. My impression is it was the fall, but whether September or December, can't say.

Ques. Personally, do you know of an experiment of Dr. Wells, after 20th of January, 1845?

Ans. I have now no recollection of any.

Ques. Can you state, of your own personal knowledge, that Dr. Wells originated this idea of pulling teeth, without pain, by taking gas into the lungs?

Ans. I know Dr. Wells claimed he had made the discovery, openly and publicly, and I never heard it called in question at that time.

Ques. When and where did he claim the discovery, and what did he say?

Ans. At and about the time the experiments were made at his office; in his office, and while walking with him in the streets and in the fields.

Ques. Did you ever, in any other manner, hear him claim this discovery?

Ans. I do not know that I did.

Ques. Can you state in what business Dr. Wells was engaged in 1845, 1846, and 1847?

Ans. On account of ill health, he left the dentist business; was engaged in various undertakings; I cannot particularly specify them now.

Ques. Was you a member of the Common Council of the city of Hartford in 1852? and was you present, and did you act on the resolutions relating to the discovery of Dr. Wells?

Ans. I was a member, and present, and acted on those resolutions.

Ques. On what testimony did you then act?

Ans. I acted on my own knowledge, which I have now detailed.

Ques. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. I had not.

Ques. by Dr. P. W. Ellsworth, for Mrs. Elizabeth Wells.

Do you know Dr. Wells visited Boston, relative to this discovery?

Ans. I supposed he did. I know he went to Boston; I think soon after drawing J. G. Wells's tooth.

Ques. by same. What was popular opinion in Hartford as to Dr. Wells being the discoverer of the gas for preventing pain. (Question objected to.)

Ans. I never heard it questioned till yesterday.

Ques. by same. Do you know that others used gas in dental operations besides Dr. Wells, about this time.

Ans. I do not, of my personal knowledge.

Ques. Did Dr. Wells go back to his dental business, after leaving it?

Ans. He did, a year or two, or two or three, after these experiments; I cannot give the time.

Ques. by same. Did you know Dr. Wells, just before his death, went to New York, to lay his claims before the medical faculty?

Ans. I did not.

Ques. by H. Cornwall. During the time Dr. Wells was out of his dental business, was he actively engaged in other business?

Ans. I suppose he was—I know he was.

Ques. by E. A. Bulkley, counsel for Mrs. Wells. After Dr. Wells returned from France, did he inform you he had laid his claims before the medical faculty, for his discovery of preventing pain in surgical operations?

Ans. He did.

Ques. by H. Cornwall. Do you know for what Dr. Wells went to Paris?

Ans. I only know from what he did there, and what he told me afterwards.

Ques. by same. Do you know what he did there; and if so, what?

Ans. He purchased paintings, and also stated to me he presented his claims for this discovery to some society; what society I cannot say.

Ques. by E. A. Bulkley. Did he state to you that he expected to receive from Paris a pension or reward? (Objected to.)

Ans. I so understood him.

PETER D. STILLMAN.

C. D. WYMAN.

Ques. What is your age and occupation?

Ans. I am thirty-two, and a telegraph operator.

Ques. How long have you resided in Hartford?

Ans. I came in in the spring of 1847.

Ques. Was you acquainted with Dr. Wells?

Ans. I was, slightly.

Ques. Have you any personal knowledge of any discovery in anaesthetic agents in surgical operations?

Ans. I had not—I never witnessed any experiment.

Ques. Was you a member of the Common Council of Hartford? and did you act on the resolutions relating to Dr. Wells?

Ans. I was a member, and acted on the resolutions.

Ques. On what testimony did you then act?

Ans. On what passed through our office by telegraph at the time of his death, and what was told me at, and after the time of his death, by Dr. Riggs and Charles T. Bull.

Ques. Have you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. Nothing but what I was told by others.

C. D. WYMAN.

PERRY SMITH.

Ques. What is your age and occupation?

Ans. I am forty-five; am a merchant.

Ques. Was you acquainted with the late Dr. Wells?

Ans. I had no personal acquaintance. I knew him by sight.

Ques. Have you any personal knowledge of any discovery made by him of the use of anæsthetic agents in surgical operations?

Ans. None.

Ques. Was you a member of the Common Council of Hartford in 1852, and did you act on the resolutions relating to said Wells?

Ans. I was a member, and acted on said resolutions.

Ques. On what testimony did you then act?

Ans. On the published statements of Dr. Riggs and others, published in a pamphlet; on statements in the newspapers, and public opinion generally, and from statements made by members of the Council.

Ques. Previous to October 1, 1846, did you ever see any published statement respecting the use of any anæsthetic agent, by Dr. Wells?

Ans. I can't say that I did; I may have seen it; I have no recollection that I did.

Ques. Have you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. No.

PERRY SMITH.

JAS. BOLTER.

Ques. What is your age and occupation?

Ans. I am thirty-seven; am a merchant.

Ques. Was you acquainted with the late Dr. Wells?

Ans. Yes.

Ques. Have you any personal knowledge of any discovery made by him of the use of anæsthetic agents in surgical operations?

Ans. I had not.

Ques. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. I had no knowledge except from report and belief.

Ques. On what did you found your belief?

Ans. From the statements of his widow and others.

Ques. Was you a member of the Common Council of the City of Hartford, and did you act on the resolutions relating to Dr. Wells?

Ans. I was a member, and acted on the resolutions.

Ques. by E. A. Bulkley, counsel for Mrs. Wells. On what did you base your action in the Common Council relating to Dr. Wells's discovery?

Ans. From report and belief, and statements made to me, before I head of Morton or Jackson.

Ques. by same. Did you, in the Common Council, act as on a conceded fact, so far as public sentiment in Hartford was concerned, that Dr. Wells was the discoverer?

(Objected to.)

Ans. I did.

Ques. by H. Cornwall. Can you state what the public sentiment in Hartford was on the subject of any discovery of Dr. Wells, relating to the use of anæsthetic agents, previous to October 1, 1846?

Ans. I should think public sentiment was that he was the discoverer, previous to that date; I am confident of it.

Ques. Who did you ever hear say previous to that time that Dr. Wells had made such discovery?

Ans. Dr. J. M. Riggs, for one, I think; Chas. P. Wells, for another, I think. I do not now recollect any other names.

JAS. BOLTER.

D. F. ROBINSON.

Ques. What is your age and occupation.

Ans. My age is fifty-one; I am President of the Hartford Bank.

Ques. Was you acquainted with the late Dr. Wells?

Ans. I was.

Ques. Have you any personal knowledge of any experiments made by him with nitrous oxyd gas for the purpose of rendering the human body insensible to pain in surgical operations?

Ans. I had no personal knowledge; I saw no experiments.

Ques. Had you any personal knowledge that Dr. Wells, just before his death, was engaged in perfecting any discovery?

Ans. I had no personal knowledge; I think before he went to France I spoke to him of his discovery, but cannot state positively.

Ques. Will you state whether or not all the information you have on the subject of any discovery by Dr. Wells, of the use of anæsthetic agents, was obtained by hearsay?

Ans. It was obtained from general report among our citizens.

Ques. Do you mean to say that you have heard the citizens of Hartford, generally, speak on the subject?

Ans. I cannot say who I heard speak of it, or how many; I frequently heard Dr. Wells had made application of certain gas to render the human body insensible to pain.

Ques. Will you name any individual you heard say so?

Ans. It is so long ago I do not recollect.

Ques. Was you a member of the Common Council of Hartford, and did you act on the resolutions relating to Dr. Wells's discovery; and if so, did you act on the reports you have spoken of?

Ans. I was a member, and think I was present when the resolutions were passed. I acted on my knowledge obtained in 1844 or 1845, or about that time, from the statements I have before spoken of.

Ques. What knowledge had you of any discovery of Dr. Wells, in 1844?

Ans. I cannot speak certainly as to dates. Shortly after the exhibition of laughing gas, I heard Dr. Wells had made a discovery of administering gas to render his patients insensible to pain; this was a year or two before I saw it announced in the Boston papers as having been discovered there.

Ques. Do you know from whom Mr. Wells got this idea; and how many experiments he ever performed?

Ans. I do not know; nor how many experiments he performed.

Ques. Can you state in what business Dr. Wells was engaged in 1845, 1846, and 1847?

Ans. I was not particularly intimate with him; supposed he had an office and pursued the dental business, and pursued this discovery, and was perfecting this discovery until his death.

Ques. Do you not know that, in 1845, he was engaged in getting up and exhibiting a panorama?

Ans. I do not.

Ques. Do you not know that in 1845, or 1846, he was extensively engaged in manufacturing and selling a shower-bath?

Ans. I do not.

Ques. Do you not know that in the fall or winter of 1846 he went to Paris, and returned the next spring; and that, during 1847, and up to the time of his death, he was engaged in selling pictures, at auction or otherwise, which he had brought from Paris?

Ans. I understood he went to France; with respect to the rest of the question, I have no knowledge.

Ques. by E. A. Bulkley, counsel for Mrs. Wells' Have you been in the habit of reading the Boston papers since 1844?

Ans. I have, since 1836.

Ques. by same.—Prior to any knowledge you had of any claim of discovery by Drs. Morton and Jackson, was there not a conceded public sentiment in Hartford that Dr. Wells was the discoverer of the principles of rendering the body insensible to pain in surgical operations?

(Objected to.)

Ans. There was.

Ques. by H. Cornwall. Who in Hartford conceded it?

Ans. I cannot give names.

Ques. Can you give any one name?

Ans. I cannot; but I think that was the general sentiment.

Ques. How can you come to the conclusion as to the general sentiment of the people of Hartford, if you cannot name a single individual you have heard speak on the subject?

Ans. Because I remember strong impressions, when I do not remember names.

Ques. Do you mean to say that you have received impressions, generally, from the people of Hartford, on this subject?

Ans. I can't say I have conversed with the people generally.

Ques. Can you testify that any other individual, besides yourself, in Hartford, entertains the sentiment that Dr. Wells was the discoverer of any anæsthetic agent?

Ans. I have heard members express that opinion, and never heard a contrary one expressed.

DAVID F. ROBINSON.

BARGULLAI HUDSON. November 26.

Ques. What is your age and occupation?

Ans. My age is sixty; I am a merchant.

This is the deposition of Alderman Hudson, on whose statement so many of the Council voted.

Ques. Was you acquainted with the late Dr. Horace Wells, of Hartford?

Ans. I was well acquainted with him.

Ques. Have you any personal knowledge of any discovery by him of any anæsthetic agent in surgical operations?

Ans. I never saw any experiments.

Ques. Do you personally know that just before his death he was engaged in perfecting any discovery?

Ans. I do not.

Ques. Was you a member of the Common Council of the City of Hartford, in 1852, and did you act on the resolutions relating to the discoveries of Dr. Wells?

Ans. I was a member and acted on said resolutions.

Ques. On what testimony was your action in the Common Council based?

Ans. From statements in the newspapers; from hearing that Dr. Wells had made the discovery, and from never hearing any other person claimed the discovery, until after or about the time of Dr. Wells's death.

Cross-examined by E. A. Bulkley, counsel for Mrs. Wells.

Ques. Was it not generally known and reputed in this city that Dr. Wells was the discoverer of an agent to prevent pain in surgical operations?

(Objected to.)

Ans. I think it was.

B. HUDSON.

UNITED STATES OF AMERICA, }
District of Connecticut. } ss.

I, Erastus Smith, a Commissioner duly appointed by the Circuit Court of the United States, for the District of Connecticut in the Second Circuit, under and by virtue of the Acts of Congress, entitled "An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States," passed February 20th, 1812, and the Act of Congress, entitled "An Act, in addition to an Act, entitled 'An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States,'" passed March 1st, 1817, and the Act, entitled "An

Act to establish the Judicial Courts of the United States," passed September 24th, 1789, *do hereby certify*, that the reason for taking the foregoing *deposition* is, and the fact is, the *witnesses* are material and necessary in the cause in the caption of the said deposition named, and *they* reside more than one hundred miles from Washington.

I further certify, That a notification of the time and place of taking the said *depositions*, signed by me, was made out and served on Elizabeth M. Wells, and Charles Wells, to be present at the taking of the *deposition*, and to put interrogatories, if they might think fit.

I further certify, That on the 22d, 23d, 24th, and 26th days of December, in the year of our Lord one thousand eight hundred and fifty-two, I was attended by counsel for petitioner, and by counsel for Mrs. Wells, and by witnesses, who were of sound mind and lawful age, and the witnesses by me first carefully examined and cautioned, and sworn to testify the truth, the whole truth, and nothing but the truth, and the depositions were by me reduced to writing, in the presence of the witnesses, and from their statements, and after carefully reading the same to the witnesses, they subscribed the same in my presence. I have retained the said deposition in my possession, for the purpose of sealing the same with my own hand, and forwarding to Congress, for which the same were taken.

And I do further certify, That I am not of counsel nor attorney for either of the parties in the said deposition and caption named, nor in any way interested in the event of the cause named in the said caption.

In testimony whereof, I have hereunto set my hand and seal, this 10th day of December, in the year of our Lord one thousand eight hundred and fifty-two, and of the Independence of the United States, the seventy-seventh.

[L. S.]

ERASTUS SMITH,
United States Com., duly appointed
by the Circuit Court of the U. S., for the
District of Connecticut in the Second Circuit.

Deposition of Dr. Ellsworth, whose name appears as cross-examining witness for Mrs. Wells, and acting as her agent.

HARTFORD, March, 25, 1847.

As attempts have been made to deprive Mr. Horace Wells, dentist, of the honor of discovering the effects produced by certain gases in allaying pain, I feel it my duty to state the facts in the case. Dr. Jackson does not claim an earlier discovery

Morton's trial was with a different agent, which has proven to be safe and effectual.

See his deposition, p. 68—answer to interrogatory 28. Never saw but one by "Wells or Riggs;" and see testimony as to subsequent failure & abandonment.

A casual allusion not at all consistent with what is now claimed for Wells.

Not so.

Contrast this with the claim that Wells had used ether in 1844.

than the latter part of 1846, and even then only suggested to Mr. Morton that ether might answer the purpose, and says that the first trials of Morton were successful, "proving exactly as I had predicted." The first trial of Morton, according to his own (Morton's) statement, was on the 30th September, 1846. Now, I hereby declare, that to my full knowledge, nitrous oxyd gas was administered two years earlier than this, viz: in 1844, by Mr. Wells, and that many teeth were extracted, without pain, under its influence; and that Mr. Wells went to Boston at that time, as I was then informed, for the purpose of introducing the gas to the attention of surgeons in that city. Moreover, in an article published June 18th, 1845, in the Boston Medical and Surgical Journal, I referred to it as a thing well known and established—the article being headed, "On the Modus Operandi of Medicine," written to show that many, if not all, local diseases, are cured by specific stimulants. Now, when it is known that Mr. Morton was instructed in his profession by Mr. Wells, and introduced into business by him, we can easily trace the manner in which Mr. M. *might* have derived his information. It is to be borne in mind, also, that Jackson and Morton have, through the public prints, each denied the other his claim—a thing, easily settled, one would think, if it in justice belonged to either. In my own mind, there is not a shadow of doubt that the whole merit of the discovery of this thing rests with Wells, and with him alone, although others may have experimented with ether before him. The idea and practical application *are his*, and let the public concede that to him, which his generosity, unrestricted by patents, demands, and which has been, as far as possible, wrested from him. The claimants in Boston I do not know, and should be unwilling, in any manner, to injure their feelings, but I must say that they are laboring under an hallucination at least; though I cannot but hope they may be able to establish some claim to originality, a task somewhat difficult, as the case appears to stand. These statements are given, not from any personal considerations, but simply as an act of justice; and I hope that the profession, after due deliberation, will give a righteous award.

P. W. ELLSWORTH, M. D.

Deposition No. 2, of same.

STATE OF CONNECTICUT, }
Hartford County. } ss.

I was perfectly aware of the discovery, by Horace Wells, of the anæsthetic property of nitrous oxyd gas, as early as 1844.

This implies an admission that it had not led Wells to try ether, as now claimed.

The discovery of this property, possessed by the gas, must inevitably, in my opinion, have led to the trial of ether, as both have been used for many years, to produce the same physical phenomena in the human body. It undoubtedly

would be the very first thing suggested to one witnessing the anæsthetic effects of nitrous oxyd.

I am perfectly aware of Mr. Wells's visit to Boston, for the purpose, as stated at that time, of announcing his discovery, and giving it a fuller trial at the hospital in that city, and also his dissatisfaction with the result of his visit, both as to the success of his experiment before Dr. Warren and his class, and the reception with which his idea met.

I believe nitrous oxyd gas an efficient anæsthetic agent, not as easily used, it is true, as some *other substances recently experimented with*, yet entitled to a high place among these. I was *fully aware of its complete success, in many minor operations, in 1844*, and repeated often since that time. The charge that it is inefficient cannot apply, as I have, under its influence, removed a thigh with as much success as with ether.

See last note.

See his deposition before the Commissioner.

This refers to Goodale's operation in 1848. See his deposition that he suffered pain, &c.

Having a full information respecting the circumstances attending the birth of this discovery, and also having carefully perused the statements of Jackson and Morton, I have seen no reason to change my opinion, or in the slightest manner doubt, that to Wells alone belongs the *whole* honor of first using any substance by inhalation for the mitigation of pain.

P. W. ELLSWORTH.

HARTFORD, NOVEMBER 21, 1849.

Subscribed and sworn to before me,

JAMES C. WALKLEY, *Justice of the Peace.*

UNITED STATES OF AMERICA:

DISTRICT OF CONNECTICUT, } ss.
City of *Hartford and State of Connecticut.*

BE IT REMEMBERED, That on this thirtieth day of November, in the year of our Lord one thousand eight hundred and fifty-two, and by adjournments to December 10th, 1852, I, Erastus Smith, a Commissioner, duly appointed by the Circuit Court of the United States, for the District of Connecticut, in the Second Circuit, under and by virtue of the Acts of Congress, entitled "An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United

States," passed February 20th, 1812, and the Act of Congress entitled "An Act, in addition to an Act, entitled 'An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States,'" passed March 1st, 1817, and the Act entitled "An Act to establish the Judicial Courts of the United States," passed September 24th, 1789, did call and cause to be and personally appear before me, at my office at Hartford, in the city of Hartford, in the said District of Connecticut, in the State aforesaid, Dr. Pinckney W. Ellsworth, to testify and the truth to say, on the part and behalf of the petitioner, in a certain matter now depending and undetermined, in the Congress of the United States, at Washington, wherein Mr. T. G. Morton is petitioner or memorialist. And the said witness being about the age of thirty-eight years, and having been by me first cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy aforesaid, I did carefully examine the said Ellsworth, and he did thereupon depose, testify, and say as follows, viz :

Deposition No. 3, of Dr. Ellsworth,

DR. PINCKNEY W. ELLSWORTH.

1. Ques. What is your age and occupation ?

Ans. I am thirty-eight this December ; I am a physician and surgeon.

2. Ques. Where do you reside ?

Ans. In Hartford, where I have resided since 1839.

3. Ques. Did you know the late Dr. Horace Wells ?

Ans. I did, intimately ; lived in the same house—he occupying the south, and I the north part.

4. Ques. Are you acquainted with Dr. S. A. Cooley ?

Ans. I know him very well.

5. Ques. How long have you known him ?

Ans. For many years ; more particularly for the last five or six years.

6. Ques. Were you acquainted with Dr. Cooley while he was in the drug business ?

Ans. I was.

7. Ques. How long were Dr. Cooley and his father engaged in the drug business ?

Ans. I cannot say. They were in State street, and moved into Bridge street ; whether partners or not could not say ; supposed the father the principal person ; whether the son was a clerk or partner don't know.

8. Ques. Was S. A. Cooley engaged in that business for a great number of years ?

Ans. How long I cannot say.

9. Ques. Do you know G. Q. Colton?

Ans. I do not.

10. Ques. Have you knowledge that a man by that name delivered lectures in Hartford, in December, 1844, and administered laughing gas?

Ans. From my personal knowledge, I do not; but some person delivered lectures here at that time, and I think that was the man's name.

11. Ques. Do you recollect of persons inhaling the gas at that time, and the circumstance that some individual injured himself severely under its influence?

Ans. I have heard such was the case; not present; not a severe injury; a slight contusion of shin.

12. Ques. Who informed you of this?

Ans. I think it was Dr. Wells.

13. Ques. What did he tell you about it?

Ans. He said somebody either had met with a slight contusion or bruise, or he was told somebody had been bruised, and was told that care must be taken when the gas was inhaled, lest he should injure himself, for he would not know anything about it until he recovered from the effects of the gas.

14. Ques. When was this conversation?

Ans. About the close of the year 1844.

15. Ques. Did he state to you where this occurred when the person was injured, and who was present?

Ans. I think it was at a meeting where Colton gave the gas, and near the close of 1844; I do not now recollect the place, nor do I remember the names of the persons present with Wells.

16. Ques. Did Wells state to you that Dr. Cooley was present?

Ans. I do not remember his mentioning it.

17. Ques. Have you knowledge that Dr. Cooley was the person that Dr. Wells alluded to as having injured himself under the influence of the gas?

Ans. I have not.

18. Ques. Did Wells tell you this with his own mouth?

Ans. Yes, I think so; I would not like to swear to it.

19. Ques. What persons informed you that they were present at the time the individual injured his shins under the influence of the gas?

Ans. I can't say. David Clark and S. A. Cooley told me they were present when Wells took the gas, which was the occasion you probably refer to.

20. Ques. Why do you think I refer to that time?

Ans. Because I suppose you know that Dr. Wells always claimed that he took his idea from knowing that a person might be bruised without knowing it; that he derived his knowledge of this fact either from seeing some one so bruised, See Cooley.

or hearing that such was the case, at a public lecture in this city.

21. Ques. Did Dr. Wells tell you that he received this idea from the person that was injured under the influence of the gas, or from the fact that the person was injured?

See Cooley,
p. 1.

Ans. Wells did not tell me that he received the idea from the person who was injured; the precise words he used I cannot say; but the substance was that the knowledge of such injury was the means of proving to his mind the feasibility of using the gas in surgery, and so expressed himself that evening.

22. Ques. What evening?

Ans. The evening he knew of the injury.

23. Ques. Do you not know that Dr. Cooley was the person whose shins were injured under the influence of the gas?

Ans. I have no personal knowledge, but Mr. Cooley so informed me.

24. Ques. When was this conversation with Dr. Wells? Was it in 1844?

Ans. About the close of 1844.

25. Ques. When did you first use, if ever, any anæsthetic agent in any surgical operation in your own practice?

Ans. I think it was in 1845.

26. Ques. Will you fix the date precisely?

Ans. I cannot.

This was after
the ether dis-
covery in 1846.
See Answer to
44th Question,
and Cooley's
testimony, p. 6,
Question 5.

27. Ques. On whom was the operation performed, and what was it?

Ans. Mrs. Webb, the present wife of Professor Silliman, sr. I extracted a tooth.

28. Ques. Was you ever present at any operation when any anæsthetic agent was used by Dr. Wells? If yea, state the first time only.

Ans. I cannot say certainly that I ever saw one by Wells. I went up and saw one by Wells or Riggs, whose offices adjoined. It was, I think, immediately before Wells went to Boston about this discovery.

29. Ques. Who was the person operated upon?

Ans. I cannot say; it was a young man, and a stranger to me.

30. Ques. Do you now know him?

Ans. No.

31. Ques. Do you know where he resided?

Ans. My impression is he was a citizen of Hartford at that time.

32. Ques. Do you know J. G. Wells?

Ans. Yes.

33. Ques. Was not he the person?

Ans. I cannot say; think very likely he was.

34. Ques. What anæsthetic agent was used?

Ans. Nitrous oxyd gas.

35. Ques. From what was it administered?

Ans. From a bag.

See Dr. Bigelow's evidence.

36. Ques. How many teeth were extracted?

Ans. I think but one.

37. Ques. Describe the appearance of the person during the operation.

Ans. He did not appear to suffer pain; was quiet.

38. Ques. Did he say he felt no pain?

Ans. I do not recollect his remarks; I think he so expressed himself.

39. Ques. Can you say you recollect a word he said after the operation?

Ans. The language he used has escaped my mind.

40. Ques. Did you have any direct conversation with the person operated upon?

Ans. I cannot say.

41. Ques. When was the next operation you saw by Dr. Wells?

Ans. I think I never saw any other by him.

42. Ques. In your own practice have you ever made use of any anæsthetic agent in surgical operations? If yea, what?

Ans. I have; I have used chloroform, and nitrous oxyd gas, and ether—more commonly ether and chloroform combined.

43. Ques. What operations have you ever performed with the use of nitrous oxyd, and when? and give the names of the patients, and their residence at the time the operation was performed.

Ans. Only one—that I have mentioned—the wife of Professor Silliman, then Mrs. Webb, who was on a visit at Daniel Wadsworth, in Hartford, and an amputation of a thigh, January 1st, 1848, on a boy by the name of Goodale, in East Hartford, in the presence of Dr. Hall, of East Hartford, Reed, a dentist, Dr. Horace Wells, and several others. Dr. Wells administered the nitrous oxyd, at my request.

44. Ques. Who administered the gas to Mrs. Webb?

Ans. S. A. Cooley, at my request.

45. Ques. How far was the operation on Goodale successful?

Ans. It was eminently so; it could hardly be surpassed.

See Goodale's own account of this, p. 85.

46. Ques. Was the Webb case successful?

Ans. Entirely so.

47. Ques. Have you any personal knowledge that any other surgeon made use of nitrous oxyd in surgical operations, previous to October 1st, 1846?

Ans. None that I remember.

48. Why have you not continued to use the nitrous oxyd in your surgical operations?

Ans. It is not as easily prepared.

49. Ques. Do you mean to say that the operation performed by you on the boy Goodale was entirely unattended with pain?

Ans. It had every evidence of being painless.

50. Ques. What evidence was there in this case to induce you to think it was without pain?

See Goodale,
p. 85.

Ans. Before being under the influence of gas the lad suffered terribly—could not bear to have the limb touched; after inhalation there was no apparent consciousness; he was perfectly quiet; was taken up, and his position changed, with considerable movement of the leg and knee; the thigh was cut off without a murmur; the flaps drawn up so as to see that they fitted well; the large nerve of the ham was found to project an inch; it not having retracted with the flap, it was the size of a goose quill; this was cut off, so as to prevent its being bruised when crossing the end of the bone; this, under ordinary circumstances, would be quite as painful as any of the great incisions of the flesh; he manifested no appearance of sensibility.

51. Ques. Have you now described the whole operation?

Ans. All that is usually called the operation, except tying the arteries.

52. Ques. How many times during the operation did Goodale inhale the gas?

Ans. I cannot say; I was attending to the operation, and Wells to the gas.

53. Ques. At any time during the operation did you request Dr. Wells to give more of the gas, and he refused? If yea, what reason did he give?

See Goodale,
contra.

Ans. I have no recollection of any such request; but it is not improbable I requested more should be given on the resection of the nerve; if so, Wells gave it; he did not refuse.

54. Ques. Have you any personal knowledge of any experiment made by Dr. Wells, with the use of any anæsthetic agent, upon any person, for extracting teeth, between January 20th, 1845, and the 1st of October, 1846?

☞ Ans. None, unless the experiment already alluded to as witnessed by me, the exact date of which I do not recollect. I mean this to apply to the anæsthetic agent only, and not to the apparatus of inhalation.

☞ 55. Ques. Have you any personal knowledge that Dr. Wells made use of any apparatus for inhaling any anæsthetic agent, between January 20th, 1845, and October 1st, 1846?

Ans. No.

☞ See Marcy's
statement. If
that operation
was performed
in Hartford, is
it credible that
this witness
should not have
known of it?

56. Ques. Have you any personal knowledge that any person made use of ether in any surgical operation, for the purpose of preventing pain, previous to October 1st, 1846?

Ans. No.

57. Ques. Have you any personal knowledge that Dr. Wells went to Boston, in January, 1845, or about that time, for any purpose?

Ans. My information was derived from him.

58. Ques. Do you know in what business Dr. Wells was engaged during the spring and summer of 1845?

Ans. I think he was out of business part of this time, on account of ill health; cannot now say as to the rest.

59. Ques. Do you not know that during this time Dr. Wells was engaged in getting up and exhibiting a panorama or natural history exhibition?

Ans. No.

60. Ques. Do you know that he did this at any time?

Ans. I do not, from personal knowledge.

61. Ques. Do you know in what business he was engaged in 1846, previous to December?

Ans. I think, part of the time getting up a bath, and part of the time in dentistry.

62. Ques. Do you know when he went to Paris?

Ans. I think, in the winter of 1846-7.

63. Ques. Do you know for what purpose he went?

Ans. I do, in part, at least.

64. Ques. Do you know that he went there for the purpose of getting up pictures to bring to this country for sale?

Ans. That was one object.

65. Ques. When did he return from Paris?

Ans. In a short time; I think two or three months.

66. Ques. In what was he engaged after his return?

Ans. I am unable to state with certainty.

67. Ques. Can you, of your own knowledge, state anything he did?

Ans. Yes.

68. Ques. Was he engaged during this time in selling pictures at auction?

Ans. Cannot say.

69. Ques. What is your impression about it?

Ans. That he made sale of a few of his pictures, by himself or agent, but that many of his pictures remained unsold at the time of his death.

70. Ques. Do you know who his agent was, if he had any?

Ans. No.

71. Ques. How many affidavits have you made on this subject?

Ans. Only one, I think; it was published.

72. Ques. At whose request?

Ans. At Dr. Wells's.

73. Ques. Have you made a statement, not sworn to, published in a pamphlet in 1852, with your affidavit?

Ans. I made such a statement, which is published in said pamphlet.

74. Ques. At what date did you make your affidavit?

Ans. I cannot now state.

75. Before whom did you swear to it?

Ans. I cannot say from memory.

76. Ques. Is the affidavit—a printed copy of which is now shown to you—the affidavit you swore to?

Ans. I believe it is.

77. Ques. What is the date of it?

Ans. The published date is November 21st, 1849; whether it agrees with the manuscript I cannot say.

78. Ques. Are you not sure that that affidavit was made after the 20th of January, 1848?

Ans. The affidavit was given after. Since stating that the affidavit was at the request of Wells, (having neither seen that, nor examined the dates of the statement and affidavit before,) I find they were given at an interval, but supposed from seeing no date at the bottom of the statement in the pamphlet, that the former was a mere general prelude to the latter; the statement was given at the request of Wells, and the affidavit, probably, at the request of Mr. Wales, the brother of Mrs. Wells.

79. Ques. Can you say that the affidavit was made at the request of any person?

Ans. I think it was.

80. Ques. Are you acquainted with the Hon. Truman Smith?

Ans. I am.

81. Ques. Has he been in this city during any portion of the time the depositions were being taken in this matter? If yea, for how long?

Ans. Yes; I do not know how long; it was a hurried visit.

82. Ques. Is he counsel for Mrs. Wells?

See Mrs. Wells's statement that Hon. Truman Smith is her counsel.

Ans. He expressly disclaimed it, which is all I know on the subject.

83. Ques. What was the occasion of his disclaiming it?

Ans. He called on me for knowledge of the facts, saying he was under instructions from the legislature of this State, or was acting in behalf of this State, or of the United States; the precise language I can't recollect.

84. Ques. Is this what you mean by his disclaiming to be her counsel?

Ans. No.

85. Ques. What was it?

Ans. In the course of that conversation he expressly remarked that he was not her counsel.

86. Ques. How many interviews did you have with him on this subject?

Ans. I cannot say; but a few.

87. Ques. Is your memory good?

Ans. I think so.

88. Ques. Have you yet determined the time of extracting the tooth for Mrs. Webb?

Ans. I have not, with certainty; about trifling events, happening four or five years since, my memory may be treacherous.

89. Ques. Do you consider it a trifling event in extracting a tooth without pain to the patient?

Ans. The fact was important that a tooth could be so extracted, but not so important that I should remember the exact time, when so many other teeth had been extracted previously, under the influence of the same agent.

90. Ques. Have you any personal knowledge that a tooth was ever extracted, before this, under the influence of nitrous oxyd, without pain to the patient?

Ans. Yes.

91. Ques. How many?

Witness asks counsel, "do you mean how many I have seen, or how many I have knowledge of?" as it will make a difference in the answer.

Counsel says, "I ask for "personal knowledge," and nothing else.

Ans. I have already stated I had seen but one; in speaking of my knowledge, I meant what I had heard from Wells and others.

Cross-examination.

92. Ques. by H. K. W. Welch, counsel for Mrs. Wells. Do you mean that Dr. Wells never entertained the idea that the gas might be used for anæsthesia, prior to that evening on which it was given in the presence of Colton, Cooley, Clark, &c.?

Ans. No.

93. Ques. Was you acquainted with J. G. Wells as early as 1844?

Ans. No; I think I was not.

94. Ques. You say that when you saw the first patient operated on in Wells's or Riggs's office, you do not remember the words he used to express himself. What was the fact as to his suffering pain?

Ans. He said he felt none, though the mode of expression I have forgotten.

95. Ques. Are there no other reasons why you do not now use the gas, besides its not being so easily prepared.

Ans. Yes; it is troublesome to carry to a great distance.

96. Ques. Do not persons under the influence of ether and chloroform appear to suffer pain when they afterwards say they did not?

Ans. Usually there are more or less expressions of pain—cries and movements, unless the patient is completely overwhelmed; these expressions may exist in a great degree and yet the patient ordinarily declares himself as having suffered no pain.

97. Ques. Do you mean that the person who has given such indications of pain, subsequently declares that he experienced no pain?

Ans. Yes, where any anæsthetic agent has been well given.

98. Ques. Have you often given chloroform and ether?

Ans. Yes.

See Goodale,
p. 85.

99. How does the Goodale case compare with those under the influence of ether?

Ans. Much superior, with one exception, to any case where pure ether has been used by me, so far as I can now remember.

100. Ques. Do you consider the dressing of a wound as a part the of operation?

Ans. No.

101. Ques. Do you continue the gas or vapor during the dressing of the wound?

Ans. No.

102. Ques. What is the usual practice?

Ans. All anæsthetic agents are stopped as soon as possible. As the dressing is not usually very painful, there is generally an interval of some minutes—often twenty—between the incisions, and bringing the flaps together, to be sure of no after bleeding.

103. Ques. Do persons, after surgical operations with ether and chloroform, complain at all during the dressing of the wounds?

Ans. Generally as much as if they had not taken it, if there is a delay of ten or fifteen minutes.

104. Ques. Why do you not continue chloroform or gas during the dressing?

Ans. Because there is some risk in long continuing any such agent, and the dressing is not usually painful enough to warrant it.

See Goodale,
contra.

105. Ques. You say that in the Goodale case Wells did not refuse to give more gas when the nerve was re-divided. How do you know this?

Ans. I know he gave all I wished should be given, and I know that I wished enough should be given to keep him easy, and I know the patient said he was easy.

106. Ques. You say you have no personal knowledge of any operation by Wells, between January 20, 1845, and October 1, 1846. Have you any proof that Wells was thinking on the subject, and trying to perfect the discovery? (Objected to.)

Ans. Yes, according to the best of my belief.

107. Ques. Did Wells make any improvements, to your knowledge, after the first use of the gas, in its mode of administration?

Ans. There was ample proof to my mind that he did. (Answer objected to.)

See p.
Dr. Ellsworth's
communication
in Boston Medi-
cal and Surgical
Journal, Dec.
16, 1846, that
Wells ceased all
personal efforts
after the experi-
ment at Bos-
ton, Jan. 20,
1844.

108. Ques. Do you know that from January 20, 1845, to October 1, 1846, experiments with anæsthetic agents were being made by Dr. Wells, or others, in this city?

Ans. I have no other personal knowledge than that previously stated by me, but had evidence satisfactory to my

own mind that such was the case. (Last part of the answer objected to.)

109. Ques. Did you call at the office of Dr. Wells, with a view to ascertain if experiments with the gas were continued by him during the time mentioned above?

Ans. Yes.

110. Ques. Did you ascertain that Dr. Wells, or others under his direction, continued the use of the gas during this period?

Ans. I was told it was used, but cannot state whether under his direction or not. (Objected to.)

111. Ques. Did Dr. Wells ever consult you with reference to the comparative safety of nitrous oxyd gas and sulphuric ether as an anæsthetic agent?

Ans. Yes.

112. Ques. Did he thus consult you prior to Dr. Morton's claims of being the discoverer of an anæsthetic agent?

Ans. I am confident he thus spoke of it just before or just after he returned from Boston, in January, 1845.

113. Ques. What opinion did you express on the subject?

Ans. That he had better be content with the gas, as it had proved efficient, and I believed it safer.

114. Ques. Did Dr. Wells show you improved apparatus for inhaling gas between January 20, 1845, and October 1, 1846?

Ans. He showed me instruments and improvements, but I cannot speak certainly as to the dates.

114. Ques. Did not Dr. Wells often, prior to October 1, 1846, speak to and consult you respecting the use of anæsthetic agents by himself?

Ans. He did.

116. Ques. Did Dr. Wells, before leaving this country for Europe, prepare himself in any manner to make his claim public in Paris? See Brewster, p. 110.

Ans. He did, as I believe.

117. Ques. Did he take any steps towards establishing his claim in Paris, as the original discoverer of an anæsthetic agent, before he left this country?

Ans. I am quite confident he did.

118. Ques. Do you know that Dr. Wells, prior to his leaving for Europe, had heard that Dr. Jackson had presented his claim before any of the learned societies in Paris?

Ans. I do not know; my impression is he had so heard; but it might have been derived from some letter written by him, after he got there, to me or to his wife.

119. Ques. Was the purchase of pictures Dr. Wells's only object in going to Europe?

Ans. No, as I have always understood and believed.

120. Ques. Was it a part of his object to establish his claims as the first discoverer of an anæsthetic agent?

Ans. Yes.

121. Ques. Did Dr. Wells do anything, on his return, towards establishing his claim?

Ans. He did.

122. Ques. Did he not write and publish more or less, in defence of his discovery, up to the time of his death?

Ans. He did.

See his letter to Morton "on hearing of his claim, October, 1845," p. 9.

This article of 22 pp., written in support of the theory that diseases are cured by specific stimuli, only contains three lines in reference to this subject, and is simply introduced to illustrate the insensibility to pain from excessive stimulation. It does not even shadow forth the great principle of anaesthesia, and has no relation whatever to the great fact demonstrated by Dr. Morton.

123. Ques. Did he not attack Morton, at once, on hearing of his claim?

Ans. He did.

124. Ques. Have you published anything referring to this discovery of Dr. Wells, prior to October 1, 1846?

Ans. I have.

125. Ques. What, and when?

Ans. In an article in the Boston Medical and Surgical Journal, published June 18, 1845. The discovery is referred to in these words: "The nitrous oxyd gas has been used in quite a number of cases by our dentists, during extraction of teeth, and has been found, by its excitement, fully to destroy pain."

126. Ques. Did you, by this language, refer to the discovery of Dr. Wells, and to that only?

Ans. Yes.

127. Ques. Was it at that time a well known fact in this community, that Dr. Wells, and those associated with him in their practice, made use of the anæsthetic agent discovered by Dr. Wells? (Objected to.)

Ans. It was. I spoke of it in my article above referred to as a well settled fact. (Answer objected to.)

128. Ques. At the time the above article was published, had any one, to your knowledge, pretended to controvert the claims of Dr. Wells, as being the original and only discoverer of an anæsthetic agent?

Ans. As applied to gases or vapors, by inhalation, no one had.

129. Ques. How early did you learn that Dr. Wells had discovered an anæsthetic agent?

Ans. I knew of it before January 18, 1845. I cannot state the precise date I first heard of it.

130. Ques. From whom did you learn that such a discovery was made?

Ans. From Dr. Wells, and other dentists.

131. Ques. Did you also learn the fact of such discovery from those who had been operated upon under the influence of this agent? (Objected to.)

Ans. I did.

132. Ques. Did all the persons alluded to in your last two answers, give Dr. Wells the credit of this discovery? (Objected to.)

Ans. They did.

133. Ques. Was your attention very strongly attracted to this discovery?

Ans. It was.

134. Ques. From what period did you reside in the same house with Dr. Wells, and how long?

Ans. From the spring of 1845 until his death.

135. Ques. Was not Dr. Wells a very superior and accomplished dentist?

Ans. I think he was, and very successful in his profession.

136. Ques. Had he not a large and lucrative practice at the time and after his discovery?

Ans. He had that reputation, until he abandoned it, on account of ill health.

137. Ques. Was he not obliged to abandon his profession several times, during the last few years of his life, on account of ill health?

Ans. So he informed me.

138. Ques. Was not his health seriously affected by the experiments he was constantly making upon himself, during and after December, 1844, with a view to perfect his discovery, by ascertaining the best anæsthetic agent, and the best mode of administering it?

Ans. Have no knowledge how far his health suffered from such experiments. The fact that he was unwell is all I can now certainly speak of.

139. Ques. Do you not know that Dr. Wells, from the time of his discovery up to the time of his death, was making improvements, both in the preparation and mode of administering the gas?

Ans. He was; though most of my certain information was derived from Dr. Wells himself; nor can I state the intervals with certainty, nor separate his experiments from those of other dentists in this city.

140. Ques. Did not this agent ultimately become, in the hands of Dr. Wells, more effective than it was in the first instance?

Ans. So I thought.

141. Ques. Was it not known, long before the discovery of Dr. Wells, that sulphuric ether would produce effects on the human system, similar to those produced by nitrous oxyd gas?

Ans. It was.

142. Ques. If it were known that the latter would produce insensibility to pain, under dental and surgical operations, would it not at once occur to any surgeon or scientific person, that the former would probably produce the same result?

Ans. I think so. Some of the ethers would be the next things inevitably experimented on.

143. Ques. Is not nitrous oxyd gas an equally efficient anæsthetic agent with sulphuric ether?

Ans. Equally so.

144. Ques. Has not nitrous oxyd gas many advantages over sulphuric ether; if so, what?

Ans. It has some. It is pleasanter to inhale; produces no

nausea ; is quicker in its effect, and does not leave as uncomfortable feelings after recovery from stupor.

145. Ques. May not the same be said of chloroform as of ether ?

Ans. Chloroform is far superior, in many respects, to ether, though, uncombined, it is sometimes dangerous.

146. Ques. Does anything now prevent your using the gas, except the mere consideration of convenience.

Ans. No.

147. Ques. Did you have many and repeated conversations with Dr. Wells, respecting his discovery, in 1845 and 1846 ?

Ans. I did.

148. Ques. Were many of these conversations prior to the pretended discovery by Dr. Morton ?

Ans. We had conversations respecting it, more or less, from the time of his discovery until his death—what proportion, before or after Morton's claim, I cannot say.

149. Ques. Prior to the pretended discovery by Dr. Morton, in 1846, did you know or suspect that any one controverted the claims of Dr. Wells, as the discoverer ?

Ans. I did not.

150. Ques. Do you know that in January, 1845, Dr. Wells visited Boston for the purpose of making his discovery known to the medical faculty ?

Ans. I know he was absent, and at that time, either just before or just after. He told me he was going, or had just been to Boston, for that purpose, and gave me an account of his reception, soon after he returned.

151. Ques. What account did he give ?

Ans. He said he lectured on the subject, but that an experiment he tried had partially failed, from the bag being taken away too soon ; did not think a fair trial had been given at that place.

152. Ques. Did not Dr. Wells, at all times, claim the discovery as his own, and did he ever abandon this claim, even when he was obliged to relinquish his profession, on account of ill health ?

No publication by him till after Morton's discovery.

Ans. Wells always claimed it, and defended it strenuously until death.

153. Ques. Was not the finding out of the fact that the human system can be rendered insensible to pain, during dental and surgical operations, by some agent, the discovery, and the only discovery, in this connexion, which deserves any credit ?

This was the discovery announced by Morton to Wells in the letter of Oct. 1846, p. 9.

Ans. It was *the* discovery *par excellence* ; other things connected with it might be creditable, but in a far less degree.

154. Ques. Have you had repeated conversations with Samuel A. Cooley, of this city, respecting this discovery ?

Ans. I have.

155. Ques. Did he ever, at any time, suggest to you that he originated the idea ?

Ans. I have no recollection that he ever did, until within two or three days of this time. He has always defended (so it appeared to me) Dr. Wells's claim, and has always pronounced Morton's preposterous. He has distinctly declared to me that Wells deserved the honor of any practical discovery. (Last part of the answer objected to.)

Direct examination resumed.

156. Ques. In your answer to question 102, do you speak of your practice, or general practice, in administering anæsthetic agents?

Ans. I speak particularly of my own; but it is also the practice of others, so far as I have observed.

157. Ques. Is it not perfectly safe to keep a person under the influence of ether, as well while dressing the limb as while amputating it?

Ans. It is as safe, with this only objection, that the longer it is continued, or the oftener repeated, ether, like chloroform, appears to depress more the action of the heart.

158. Question 157 repeated.

Ans. I have answered the question, I think, fully, and can only add that its safety depends on each particular case.

159. Ques. In your answer to question 157, did you compare ether with any other anæsthetic agent?

Ans. I did.

160. Ques. Is it not perfectly safe to administer ether, while dressing a limb, where it has been administered and the patient has undergone a surgical operation?

Ans. I have no personal knowledge, having never given it in such cases.

161. Ques. When did the boy Goodale say to you that he was easy during the operation upon him?

Ans. Immediately after.

162. Ques. Who were present?

Ans. I have already stated to the best of my recollection.

163. Did you ever see Dr. Wells making any improvements in apparatus for administering the gas, before October 1, 1846?

Ans. I am not able to state definitely.

164. Ques. In answer to question 108, you say you "had evidence satisfactory to my own mind that such was the case." Will you name any person you ever heard say, previous to October 1st, 1846, that Dr. Wells made a single experiment between January 20th, 1845, and October 1st, 1846, with any anæsthetic agent?

Ans. So many years have elapsed that I cannot say with certainty.

165. Ques. Will you mention any time that Dr. Wells spoke or consulted with you respecting the use of anæsthetic agents?

Ans. Once, certainly, in his office, and at other times, though the dates are now indistinct.

166. Ques. Was that not before the 20th of January, 1845?

Ans. It was near that time, though the day or week I could not swear to.

167. Ques. I refer you to questions and answers 116 and

117. What steps do you know that he took?

Ans. According to my best recollection he took such evidence as could then readily be obtained.

168. Ques. What evidence do you know he took?

Ans. Cannot now state fully, but believe he had a certificate of his discovery from myself.

169. Ques. Have you that certificate now, or a copy of it; if not, where is the original?

Ans. I have not the original, nor do I know that I have a copy. I do not know where the original is.

170. Ques. In answer to question 120 you said "yes," but afterwards said what was not taken down; "that it was not exactly what you wished to say." What did you wish to say?

Ans. I would state that I do not think he would have gone to Europe for that purpose only. His principal business, at least the pecuniary part, was connected with the pictures, though after he got there, I have reason to believe, from his letters, conversation with his wife, and his own report, after his return, that he devoted much attention to the defence of his claim.

171. Ques. Did you ever see any statement published by Dr. Wells in defence of, or claiming the discovery of any anæsthetic agent in surgical operations, before 1st of October, 1846?

Ans. No; his claim up to that was undisputed, so far as I know.

172. Ques. Did you ever see any published statement by Dr. Wells, claiming he had made any such discovery, before November 12th, 1846?

Ans. I cannot now say.

173. Ques. Have you any recollection of any such statement?

Ans. I cannot remember the date of his first communication. He defended his claim as soon as any one appeared to usurp it. (Last part of the answer objected to.)

174. Ques. Did you see a published letter, under the signature of H. Wells, written in Paris in February, 1847; if yea, had you ever seen before a letter on this subject by him published?

Ans. I believe I saw everything he published, but cannot swear to this in particular; nor can I state that it was the first that I saw.

175. Ques. At the time you wrote the article you have referred to, for the Medical and Surgical Journal, do you mean to say that no person had made use of anæsthetic

agents by inhalation, to prevent pain in surgical operations, as a discoveror, but Dr. Wells?

Ans. I did not say anything about it. I referred, however, to Wells's discovery only.

176. Ques. In 1845, 1846, and 1847, was Dr. Wells engaged in his dental business?

Ans. He was, I believe, at intervals.

177. Ques. A large or small portion of time?

Ans. I cannot now remember.

178. Ques. In 1845, 1846, and 1847, who was Dr. Wells' regular physician?

Ans. I do not know.

179. Ques. Do you mean to say that Dr. Wells ever told you that he was making improvements in his preparation and mode of administering the gas from the time of his discovery to the day of his death?

Ans. I do; but do not mean to say that all the improvements he spoke of were his own.

180. Ques. When did he tell you so?

Ans. I cannot, at this date, specify any particular times; seeing him almost daily while he was in the city, particularly after my residence in the same house with him. I have no means of fixing on any time for any particular conversations. I can only speak of the general fact.

181. Ques. Do you mean to give an affirmative or negative answer to question 179?

Ans. I mean to give an affirmative.

182. Ques. Will you state how Dr. Wells came to make use of such language, during his life?

Ans. I do not mean to swear to any particular words; only that he communicated the fact.

183. Ques. Was the operation as fully successful, on the person you say you saw either Dr. Wells or Dr. Riggs extract a tooth, in the winter of 1844-5, as regards the absence of pain to the patient, as it was in the case of the boy Goodale?

Ans. Should think it about the same.

184. Ques. Do you know that Dr. Morton had any knowledge that a tooth could be extracted without pain, until he ascertained the fact by experimenting with others?

Ans. No.

185. Ques. How long may a person be kept in a state of insensibility to pain, under the influence of nitrous oxyd, with entire safety?

Ans. I cannot say.

186. Ques. Does the inhalation of nitrous oxyd gas ever produce nausea?

Ans. I never knew that effect produced.

187. Ques. Did you ever inhale nitrous oxyd and ether, separately, till you became insensible?

Ans. No.

188. Ques. How do you know, then, which leaves the most uncomfortable feelings?

Ans. By the statements of patients, and medical essays on the use of ether and nitrous oxyd gas.

189. Ques. Did you ever hear a statement from any patient whom you know had inhaled both?

Ans. It is my impression I have, but I cannot now state any individual.

190. Ques. Do you mean to swear that Dr. Wells spoke to you respecting any anæsthetic agent he was then using, between the 1st of February, 1845, and 1st of October, 1846?

Ans. I have no doubt he did, but cannot be sure as to time or language.

191. Ques. Has not S. A. Cooley informed you that Dr. Wells got his idea of pulling teeth, without pain, from him?

Ans. Never, to my remembrance, until within three or four days last past.

192. Ques. Is not all the information you have with regard to any original discovery of the use of any anæsthetic agent in surgical operations, hearsay?

Ans. Yes.

193. Ques. Have you not taken a very active part in attempting to establish some claim for Mrs. Wells, in this matter? Have you not advertised in the daily papers in this city for persons whom you intend to make witnesses? Have you not attended before the Commissioner, and put interrogatories to other witnesses? and are you not the adviser of Mrs. Wells, in this matter?

See H. Cornwall's deposition, on p. 121, that he is her Attorney and agent.

Ans. I have taken some interest in Mrs. Wells's case, and have repeated an advertisement for information, published at the request of some other friend, because the original advertisement was misunderstood. I did put a few interrogatories, at request of Mrs. Wells's counsel, but have not acted as Mrs. Wells's counsel, and do not know that I have advised her, except to put her case in the hands of counsel, and get all the proof she could.

P. W. ELLSWORTH, M. D.

UNITED STATES OF AMERICA, }
District of Connecticut. } ss.

I, Erastus Smith, a commissioner duly appointed by the Circuit Court of the United States, for the District of Connecticut in the Second Circuit, under and by virtue of the

Acts of Congress, entitled "An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States," passed February 20th, 1812, and the Act of Congress, entitled "An Act, in addition to an Act, entitled 'An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States,'" passed March 1st, 1817, and the Act, entitled "An Act to establish the Judicial Courts of the United States," passed September 24th, 1789, *do hereby certify*, that the reason for taking the foregoing *deposition* is, and the fact is, the *witness* is material and necessary in the cause in the caption of the said deposition named, and that he resides in Hartford.

I further certify, that a notification of the time and place of taking the said deposition, signed by me, was made out and served on Elizabeth W. Wells and Charles Wells, to be present at the taking of the deposition, and to put interrogatories, if he or they might think fit.

I further certify, that on the 30th day of November and after, in the year of our Lord one thousand eight hundred and fifty-two, I was attended by counsel for petitioner and for Elizabeth W. Wells, and by the witness, who was of sound mind and lawful age, and the witness by me first carefully examined and cautioned, and sworn to testify the truth, the whole truth, and nothing but the truth, and the deposition was by me reduced to writing, in the presence of the witness, and from his statement, and after carefully reading the same to the witness, subscribed the same, in my presence. I have retained the said deposition in my possession, for the purpose of sealing the same with my own hand, and forwarding to Congress, for which the same was taken.

And I do further certify, that I am not of counsel nor attorney for either of the parties in the said deposition and caption named, nor in any way interested in the event of the cause named in the said caption.

In testimony whereof, I have hereunto set my hand and seal, this 10th day of December, in the year of our Lord one thousand eight hundred and fifty-two, and of the Independence of the United States the seventy-seventh.

[L. s.]

ERASTUS SMITH,
*United States Commissioner, duly appointed
 by the Circuit Court of the United States, for the
 District of Connecticut in the Second District.*

UNITED STATES OF AMERICA:

DISTRICT OF CONNECTICUT, }
City of Hartford, and State of Connecticut. } ss.

BE IT REMEMBERED, That on this 18th day of December, in the year of our Lord one thousand eight hundred and fifty-two, I, Erastus Smith, a Commissioner, duly appointed by the Circuit Court of the United States, for the District of Connecticut, in the Second Circuit, under and by virtue of the Acts of Congress, entitled "An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States," passed February 20th, 1812, and the Act of Congress, entitled "An Act, in addition to an Act, entitled 'An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States,'" passed March 1st, 1817, and the Act, entitled "An Act to establish the Judicial Courts of the United States," passed September 24th, 1789, did call and cause to be and personally appear before me, at my office at Hartford, in the City of Hartford, in the said District of Connecticut, in the State aforesaid, Henry A. Goodals, to testify and the truth to say, on the part and behalf of the Wm. T. G. Morton, in a certain matter, now depending and undetermined, in the Congress of the United States, at Washington, wherein said Wm. T. G. Morton is memorialist, and Elizabeth W. Wells, *et al* are remonstrants. And the said Henry A. Goodale, being about the age of nineteen years, and having been by me first cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy aforesaid, I did carefully examine the said Henry A. Goodale, and he did thereupon depose, testify, and say as follows, viz:

This is the patient Dr. Ellsworth testifies that Nitrous Oxyd was successful upon.

HENRY A. GOODALE.

Ques. What is your residence, age, and occupation?

Ans. I reside in East Hartford; my age nineteen years; am a cigar maker.

Ques. Have you had a leg amputated, by whom, and when, and was any thing administered to you to prevent pain; if yea, what, and by whom?

Ans. I had a leg amputated by Dr. Ellsworth, I think, 1st January, 1848; something was given me to prevent pain, by Dr. Wells; I inhaled it from a bag.

Ques. How many times did you inhale from the bag?

Ans. Twice.

Ques. Will you state whether Dr. Ellsworth requested Dr. Wells to give it again, because you were in much pain?

Ans. He did.

Ques. What did Dr. Wells say when Dr. Ellsworth requested him to give more gas?

Ans. He said he thought it would not be best, as I was too weak to bear any more?

Ques. Did Dr. Wells decline giving any more?

Ans. He did.

Ques. During the time Dr. Ellsworth was at work upon the limb, after the gas was first given, did you experience great pain?

Ans. I did.

HENRY A. GOODALE.

UNITED STATES OF AMERICA, }
District of Connecticut. } ss.

I, Erastus Smith, a commissioner duly appointed by the Circuit Court of the United States, for the District of Connecticut in the Second Circuit, under and by virtue of the Acts of Congress, entitled "An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States," passed February 20th, 1812, and the Act of Congress, entitled "An Act, in addition to an Act, entitled 'An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States,'" passed March 1st, 1817, and the Act, entitled "An Act to establish the Judicial Courts of the United States," passed September 24th, 1789, *do hereby certify*, that the reason for taking the foregoing *deposition* is, and the fact is, the *witness* is material and necessary in the cause in the caption of of said deposition named.

I further certify, that on the eighteenth day of December, in the year of our Lord one thousand eight hundred and fifty-

two, I was attended by H. Cornwall, counsel for Wm. T. G. Motorn, and by the *witness*, who was of sound mind and lawful age, and the *witness* by me first carefully examined and cautioned, and sworn to testify the truth, the whole truth, and nothing but the truth, and the *deposition* was by me reduced to writing, in the presence of the *witness*, and from his *statement*, and after carefully reading the same to the *witness*, he subscribed the same in my presence.

And I do further certify, that I am not of counsel nor attorney for either of the parties in the said *deposition* and caption named, nor in any way interested in the event of the cause named in said caption.

In testimony whereof, I have hereunto set my hand and seal this 18th day of December, in the year of our
 [L. s.] Lord one thousand eight hundred and fifty-two,
 and of the Independence of the United States
 the seventy-seventh.

ERASTUS SMITH,

*United States Commissioner, duly appointed
 by the Circuit Court of the United States, for
 the District of Connecticut in the Second Circuit.*

During the winter of 1844, I learned that Dr. H. Wells, dentist, Hartford, Conn., had discovered the mode of extracting teeth *without pain*. This was accomplished by administering to the persons operated upon, exhilarating gas or vapor, which, it was asserted, rendered the human system insensible to pain. At first I was incredulous of the fact, and received the assertions of individuals familiar with the operation, with a degree of distrust. Being, however, by invitation, a personal witness of the process of extracting teeth without pain, under this new mode, discovered and practised by Dr. Wells, with so much apparent success, I was induced to submit to a personal operation, that I might test its utility. The doctor was most successful—extracting for me a large, firmly-set, bicuspid tooth, without the slightest sensation of pain.

I also witnessed, soon after, a repetition of the same process, by Dr. Wells, upon several individuals, accompanied, in every instance, with perfect success.

Hartford, March 27, 1847.

STATE OF CONNECTICUT,

Hartford county, ss:

City of Hartford, March 27, 1847.

Then personally appeared before me, F. C. Goodrich, of this city, who signed the foregoing affidavit, and made solemn oath that the same was true.

[L. s.] Given under my hand and the seal of said city.

A. M. COLLINS, Mayor.

This may certify that during the fall or early part of the winter of 1844, (I am not positive as to the precise time,) I was induced to try the experiment of having a tooth extracted while under the influence of nitrous oxyd gas, which was performed by Dr. H. Wells, dentist, of this city. Dr. E. E. Marcy, of this city, was present during the operation, and suggested to Dr. Wells, at that time, the inhalation of pure sulphuric ether, in preference to nitrous oxyd gas. He recommended it because it was more easily prepared, and produced, when used under the same circumstances, precisely the same effects as nitrous oxyd gas. The propriety of using pure sulphuric ether, the nature of its effects upon the system, were discussed at some length between Dr. Wells and Dr. Marcy, in my hearing. Dr. Marcy was very sanguine in his opinion of its effects upon the system—its capability of rendering it insensible to pain under severe surgical operations, and expressed his determination to use the sulphuric ether himself in a surgical operation which he expected to perform in a few days.

I make this statement not because I wish to come before the public in connection with this discovery, but because facts identify me with it. I had much rather remain silent than have my name in any way connected with the subject under controversy; but it is an act of justice due to Mr. Wells that I should make public this fact.

F. C. GOODRICH.

HARTFORD, *July 6, 1847.*

UNITED STATES OF AMERICA:

DISTRICT OF CONNECTICUT,
City of Hartford, and State of Connecticut. } ss.

BE IT REMEMBERED, That on this fourth day of December, in the year of our Lord one thousand eight hundred and fifty-two, I, Erastus Smith, a Commissioner, duly appointed by the Circuit Court of the United States, for the District of Connecticut, in the Second Circuit, under and by virtue of the Acts of Congress, entitled "An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States," passed February 20th, 1812, and the Act of Congress entitled "An Act, in addition to an Act, entitled 'An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States,'" passed March 1st, 1817, and the Act entitled "An Act to establish the Judicial Courts of the United States," passed September 24th, 1789, did call and cause to be and personally appear before me, at my office at Hartford, in the city of Hartford, in the said District of Connecticut, in the State aforesaid, Francis C. Goodrich, to testify and the truth to say, on the part and behalf of the petitioner, in a certain matter now depending and undetermined, in the Congress of the United States, at Washington, wherein W. T. G. Morton is petitioner or memorialist. And the said witness being about the age of thirty-two years, and having been by me

first cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy aforesaid, I did carefully examine the said Goodrich, and he did thereupon depose, testify, and say as follows, viz:

F. C. GOODRICH. December 4.

Ques. What is your age, residence, and occupation?

Ans. My age is thirty-two; residence Hartford; occupation a printer.

Ques. Was you acquainted with the late Dr. Horace Wells?

Ans. Yes.

Ques. Have you any personal knowledge of any discovery made by him of the use of anæsthetic agents in surgical operations?

Ans. I have.

Ques. Was you present when Dr. Wells claimed to have first originated any such idea?

Ans. I don't know I ever heard him claim it, in so many words.

Ques. What do you mean by saying you have personal knowledge of any such discovery?

Ans. I mean I have had a tooth extracted, by Dr. Wells, while I was under the influence of the nitrous oxyd gas.

Ques. When?

Ans. It was in November or December, 1844.

Ques. How do you know it was in November or December?

Ans. It was when the ground was frozen hard, and before snow; after it was extracted I had an overcoat on, and brought the collar up, and tied a handkerchief round to prevent cold; this was the next evening.

Ques. Is there anything by which you can determine that it was before the 11th of December, 1844, and might it not have been between the 11th of December and the 18th of January following?

Ans. I have no means of ascertaining that it was before the 11th of December; I can only judge from the weather; I know it was before January, 1845.

Ques. Might it not have been after the 11th of December?

Ans. It might have been, but I think it was not.

Ques. Who was present beside Dr. Wells?

Ans. Dr. Marcy, Dr. Riggs, and Dr. Ketteridge.

Ques. Was Dr. Ketteridge a partner of Dr. Marcy?

Ans. He was.

Ques. Have you any personal knowledge that Dr. Wells ever made use of ether as an anæsthetic agent in any surgical or dental operation?

Ans. No.

Ques. Have you any personal knowledge that ether was ever used by any person, in any such operation, before the fall of 1846?

Ans. I have not.

Ques. Have you ever seen Dr. Wells extract any other tooth, under the influence of nitrous oxyd, than your own? if yea, who and when?

Ans. I have; I saw him extract several for J. Gaylord Wells, and one for Wm. H. Burleigh; Wells's were all extracted at one time, soon after mine was extracted, and Burleigh's soon after; I should think within a week after mine was extracted.

Ques. Did you ever know or hear that Dr. Wells extracted any teeth, under the influence of any anæsthetic agent, after his return from Boston, in January, 1845, and before October 1st, 1846?

Ans. I don't know that I did.

Ques. Did you ever make an affidavit respecting the pulling of your tooth by Dr. Wells? If yea, at whose request?

Ans. I did, at Dr. Wells's request.

Ques. Were the affidavits of Burleigh, Wells, and Milo Lee, also made about the same time?

Ans. I think they were.

Ques. Were you and the others making affidavits furnished a supper at the United States Hotel, by Dr. Wells, at the time you gave said affidavits?

Ans. No.

Ques. Were you furnished supper by Dr. Wells, about this time?

Ans. I was invited by Dr. Wells to a supper at the United States Hotel, after my affidavit was given, and after his return from France?

Ques. Was not your affidavit taken after Dr. Wells returned from France?

Ans. My impression is it was before he went, but I cannot say certainly.

Ques. What time did you make your affidavit?

Ans. I think it was in March, 1847; I now think it was after Wells's return from France.

Cross-examined.

Ques. by Bulkley. Was the supper given as an inducement, or promised for your affidavit?

Ans. It was not.

F. C. GOODRICH.

UNITED STATES OF AMERICA, } ss. *Hartford.*
District of Connecticut.

I, Erastus Smith, a Commissioner duly appointed by the Circuit Court of the United States, for the District of Connecticut, in the Second Circuit, under and by virtue of the Acts of Congress, entitled "An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States," passed February 20th, 1812, and

the Act of Congress entitled "An Act, in addition to an Act, entitled 'An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States,'" passed March 1st, 1817, and the Act entitled "An Act to establish the Judicial Courts of the United States," passed September 24th, 1789, *do hereby certify* that the reason for taking the foregoing deposition is, and the fact is, the witness is material and necessary in the cause, in the caption of the said deposition named, and that he resides in Hartford. *I further certify* that a notification of the time and place of taking the said deposition, signed by me, was made out and served on the Elizabeth W. Wells and Charles Wells, to be present at the taking of the deposition, and to put interrogatories, if they might think fit. *I further certify* that on the 4th day of December, in the year of our Lord one thousand eight hundred and fifty-two, I was attended by counsel for petitioner and for Mrs. Wells, and by the witness, who was of sound mind and lawful age, and the witness by me first carefully examined and cautioned, and sworn to testify the truth, the whole truth, and nothing but the truth; and the deposition was by me reduced to writing, in the presence of the witness, and from his statement; and after carefully reading the same to the witness, he subscribed the same in my presence. I have retained the said deposition in my possession, for the purpose of sealing the same with my own hand, and forwarding to Congress, for which the same is taken. *And I do further certify* that I am not of counsel or attorney for either of the parties in the said deposition and caption named, nor in any way interested in the event of the cause named in the said caption.

In testimony whereof, I have hereunto set my hand and seal, this 10th day of December, in the year of our Lord one thousand eight hundred and fifty-two, and of the independence of the United States the seventy-seventh.

[L. s.]

ERASTUS SMITH,
*United States Commissioner, duly appointed
 by the Circuit Court of the United States,
 for the District of Connecticut in the Second Circuit.*

Deposition, No. 1, of J. M. Riggs.

I, JOHN M. RIGGS, surgeon dentist, of the city and county of Hartford, State of Connecticut, in the United States of America, being of lawful age, and duly sworn, do depose and say:

That on or about the first of November, Anno Domini one thousand eight hundred and forty-four, *I was consulted by*

Horace Wells, surgeon dentist, of this city, county and State aforesaid, as to the practicability of administering nitrous oxyd gas, prior to the performance of dental or surgical operations.

See Cooley's statement for particulars here withheld

Thinking favorably of the suggestion, it was decided to make trial of the gas in question; and on the day following, per agreement, the protoxyd of nitrogen was administered to Horace Wells, aforesaid, at his request, and I extracted one of his superior molar teeth; he manifesting no signs of suffering, and stating that he felt no pain during the operation.

Encouraged and gratified with the success of the first experiment, the aforesaid Wells and myself continued to administer to various individuals the said gas, and to extract teeth while under its influence, in the presence of several gentlemen, until fully satisfied of its usefulness and applicability in surgical operations. I further affirm that the said Wells avowed his intention to communicate the discovery to the dental and medical faculty, and, in pursuance of that intention, proceeded to the city of Boston, State of Massachusetts, for that purpose; whilst I continued to use the said gas with great success—the patients assuring me they felt no pain.

See his examination before Commissioner: he cannot give the name of one person present.

JOHN M. RIGGS.

STATE OF CONNECTICUT,
Hartford County, ss:

CITY OF HARTFORD, *March 27, 1847.*

Personally appeared John M. Riggs, and made solemn oath to the truth of the foregoing affidavit, by him subscribed before me. Given under my hand, and the seal of said city, the day and year above written.

[L. S.] Given under my hand and the seal of said city,
A. M. COLLINS, *Mayor.*

I, JOHN M. RIGGS, surgeon dentist, of the city and county of Hartford, State of Connecticut, in the United States of America, being of lawful age, and duly sworn, do depose and say:

That during the months of November and December, 1844, I made use of the inhalation of nitrous oxyd gas, both alone and in conjunction with Dr. Horace Wells, for the prevention of pain during the extraction of teeth.

I declare that these experiments were repeated during these two months not less than twenty times, more or less, and uniformly with entire success—thus demonstrating conclu-

See his answers to interrogatories 92-3-4 at p. 100, and interrogatory 148, at p. 104.

sively the anæsthetic properties of this substance. I also further declare that I was perfectly aware of the anæsthetic properties of the vapor of sulphuric ether, during the period above alluded to, and previous to January 1, 1845, and that I made use of the nitrous oxyd gas in my dental operations simply because I believed *then*, as I believe *now*, that this last named agent was more efficient, safer, and altogether preferable to the ether vapor as an anæsthetic agent, and not because I entertained any doubts respecting the pain-preventing properties of the last named article.

See examination before U.S. Commissioner, p. 95, ques. 14.

I also declare that the properties of ether, as an anæsthetic agent, were frequently discussed by Dr. Wells and myself, during the months above named, and that from one or more successful trials, made with the ether, during the year 1844, by Dr. Wells and Marcy, its anæsthetic powers were fully demonstrated, but a *general* use was not made of it at that time, on account of its being more difficult to inhale, more offensive, and, as was supposed by Dr. Marcy, not so safe as the nitrous oxyd gas.

See note on p. 76.

The anæsthetic properties of the ether vapor and the gas were not only fully known and appreciated at this time by Dr. Wells and myself, but by *Drs. Ellsworth, Fuller, Marcy*, and probably many other physicians and citizens of Hartford; and I am only astonished that any man or men could have had the hardihood to come forward, two years after, and claim for themselves a discovery which had already excited the wonder and astonishment of hundreds of the citizens of Hartford, and even called forth from Dr. Ellsworth a distinct allusion to it in an article published in the Boston Medical and Surgical Journal, some time in 1845. Since November, 1844, the nitrous oxyd gas has, for the most part, been employed by me in my dental operations, as an anæsthetic agent, in preference to the ether or chloroform. *The ease and comfort with which it may be inhaled, and its entire efficacy, have amply repaid me for the extra trouble of preparing the gas.*

See Wells's own account of his operation at the Boston Hospital, and that Warren and Haywood, two of the Surgeons were much interested, and treated him with much kindness.

In conclusion, I take occasion to express my opinion that, if Hartford had possessed a hospital, or ample surgical facilities which Boston possesses, that the discovery of Dr. Wells would have been more minutely and fully carried out in its details, in 1844. It must be remembered that surgical cases, in Hartford, are "few and far between," and that we have, comparatively, no opportunities for the general or common introduction of any article like the one under consideration. Boston, with its array of surgeons, its hospitals, its medical and other journals, all eager to secure the credit of the discovery to the Athens of America, was the first city, after *Hartford*, where Wells communicated his wonderful discovery. There he met with a reception so cold, that after a single imperfect trial of the gas, amidst the sneers of those around him, he left Boston in disgust and sick at heart, at the unfair disposition manifested towards him.

I also further declare, that subsequently to Dr. Wells's visit to Boston, for the purpose above named, that Dr. W. T. G. Morton, of that city, a former pupil of Dr. Wells, during the spring or summer of 1845, called at two different times, at the latter's office, which was adjoining my own, in the city of Hartford, and requested Dr. Wells to inform him as to the manner of preparing nitrous oxyd gas for use, and said Morton was by him referred to me, (Dr. Well's apparatus being at that time in my possession,) and also to Dr. Charles T. Jackson, of Boston, as professional chemist, for said information. What connection there may have been between the respective visits of Drs. Wells and Morton, to Boston and Hartford, and the subsequent efforts of Drs. Jackson and Morton, to secure a patent, the public can judge. It is my firm belief, that all the knowledge possessed by Drs. Jackson and Morton, upon the subject of pain prevention, by means of anæsthetic agents, originated with Dr. Horace Wells, and was by him communicated to them, and that to him should be awarded the merit of this most important discovery.

See answer to question 129, p. 103.

JOHN M. RIGGS.

City of Hartford: On the thirteenth day of November, A. D. 1849, the above named John M. Riggs, personally appeared before me, the subscriber, Mayor of Hartford, and made oath that the foregoing certificate, by him subscribed, is true.

In testimony whereof I have subscribed the same, and
[L. S.] caused the city seal to be hereunto affixed, the day and year last above written.

PHILLIP RIPLEY.

UNITED STATES OF AMERICA :

DISTRICT OF CONNECTICUT, }
City of Hartford and State of Connecticut. } ss.

BE IT REMEMBERED, That on this 30th day of November, in the year of our Lord one thousand eight hundred and fifty-two, and subsequently, I, Erastus Smith, a Commissioner, duly appointed by the Circuit Court of the United States, for the District of Connecticut, in the Second Circuit, under and by virtue of the Acts of Congress,

entitled "An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States," passed February 20th, 1812, and the Act of Congress entitled "An Act, in addition to an Act, entitled 'An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States,' " passed March 1st, 1817, and the Act entitled "An Act to establish the Judicial Courts of the United States," passed September 24th, 1789, did call and cause to be and personally appear before me, at my office, at Hartford, in the City of Hartford, in the said District of Connecticut, in the State aforesaid, John M. Riggs, to testify and the truth to say, on the part and behalf of the Wm. T. G. Morton, in a certain matter now depending and undetermined, in the Congress of the United States, at Washington, wherein Wm. T. G. Morton is memorialist, and Elizabeth W. Wells *et al* are remonstrants. And the said John M. Riggs, being about the age of forty years, and having been by me first cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy aforesaid, I did carefully examine the said John M. Riggs, and he did thereupon depose, testify, and say as follows, viz :

Dr. J. M. RIGGS.

1. Ques. What is your age and occupation ?

Ans. I am forty ; I am a dentist.

2. Ques. How long have you resided in Hartford ?

Ans. About twelve years.

3. Were you acquainted with the late Dr. Horace Wells ?

Ans. I was well acquainted with him.

4. Ques. Do you know Dr. S. A. Cooley ?

Ans. I know S. A. Cooley, who is called doctor, from having been in a drug store.

5. Ques. Was Cooley in your office, or Dr. Wells's office, on the 11th of December, 1844 ?

Ans. He was in Dr. Wells's office at that time ; I think, without doubt, that is the date.

6. Ques. What other persons were present ?

Ans. Mr. Colton, who gave the gas, and had a lecture at Union Hall, Hartford, the evening previous ; myself, Dr. Wells, and I think two or three others, whose names I do not recollect.

7. What time in the day was it they came to Dr. Wells's office ?

Ans. I think between ten and twelve o'clock, A. M.

8. Ques. Did Dr. Wells, Cooley, and Colton, and the other persons, come to Dr. Wells's office together ?

Ans. I do not know ; my impression is they came together.

9. Ques. Do you know from where they came, at that time ?

Ans. I do not know ; but they came with a bag of gas, and as the gas was at Union Hall, I supposed they came from that place.

10. Ques. Was you present at Union Hall when Dr. Cooley took the gas, and injured himself ?

Ans. I was not present, I think.

11. Ques. Do you not know that Dr. Wells received the idea of extracting teeth without pain, by inhaling nitrous oxyd gas, from Cooley, or from seeing him hurt himself under its influence?

Ans. I do not know the fact; my impression is Dr. Cooley hurt himself under the influence, but as I was not present, do not know.

12. Ques. Did not Dr. Wells tell you that he was present when Cooley received the injuries, under the influence of the gas?

Ans. I think he did.

13. Ques. When was the first operation you ever performed when the patient was under the influence of ether?

Ans. About two years after this use of nitrous oxyd gas? soon after it began to make a noise in Boston.

Subsequent to
Morton's disco-
very—see his
deposition p 92.

14. Ques. Will you state the first time you ever saw ether administered in a surgical operation?

Ans. I never saw it administered in surgical operations, except as I administered it.

15. Ques. What took place December 11th, 1844, at Wells's office, when Cooley, Wells, Colton, and others, were present?

Ans. Dr. Wells, a few minutes after I went in, and after conversation, took a seat in the operating chair; I examined the tooth to be extracted, with a glass, as I usually do; Wells took the bag of gas from Mr. Colton, and sat with it in his lap, and I stood by his side; Wells then breathed the gas until he was much affected by it; his head dropped back; I put my hand to his chin—he opened his mouth, and I extracted the tooth; his mouth still remained open some time; I held up the tooth in the instrument, that tho others might see it, they standing partially back of the screen, and were looking on; Dr. Wells soon recovered from the influence of the gas, so as to know what he was about—discharged the blood from his mouth, swung his hand and said, "A new era in tooth pulling;" he likewise said it did not hurt him at all; we were all much elated, and conversed about it for an hour after.

16. Ques. Were the effects of the gas on Dr. Wells similar to its effects on others that you had seen inhale it at the Hall, or at any previous time you had seen nitrous oxyd gas inhaled?

Ans. No, sir—not similar to others; he took it in larger quantities than I had seen exhibited, or it had a greater effect on him, for in the other cases the bag is taken away before the person inhaling is totally insensible.

17. How many days before this was it that you saw Dr. Wells take the gas, and commence a speech?

Ans. I did not see him take it, but understood he took it the evening before.

18. Ques. Did not Wells tell you he and Cooley had taken the gas the evening before you extracted the tooth?

Ans. It is my impression he did; he came to my office after the exhibition.

19. Ques. Did you ever see nitrous oxyd gas administered before this?

Ans. I had; while in college had taken it myself.

20. Ques. How long did you ever see any person inhale nitrous oxyd gas?

Ans. I never timed any one, and cannot say.

21. Ques. Did you ever see any one drop the bag while inhaling the gas?

Ans. I think I have.

22. Ques. Had you ever seen any surgical operation performed by the use of any anæsthetic agent, previous to your pulling Dr. Wells's tooth?

Ans. No, sir.

23. Ques. Did you ever see Dr. Wells extract a tooth, with the patient under the influence of nitrous oxyd gas.?

Ans. Yes, many.

24. Ques. Who was the first person whose tooth you saw Wells extract, while under the influence of nitrous oxyd?

Ans. I can't tell.

25. Ques. Who was the second?

Ans. I can't say, positively.

26. Ques. Was the first person a male or a female?

Ans. It was a male; the only ones for weeks were males.

27. Ques. Who was the third person Wells so operated upon?

Ans. I cannot speak as to their order.

28. Ques. How long after Wells's tooth was extracted was it that he extracted a tooth under the influence of nitrous oxyd?

Ans. As soon as we could get an apparatus for making gas, which was in a few days—could not say how many.

29. Ques. Was J. Gaylord Wells among the first three or four to whom Dr. Wells administered nitrous oxyd?

Ans. I could not say positively he was among the three or four first, but he was among the first to whom Dr. Wells administered it.

30. Ques. How many persons can you state Dr. Wells administered nitrous oxyd to, previous to his going to Boston, of your own personal knowledge?

☞ Ans. I cannot state the exact number, but to quite a number.

31. Ques. How do you know this?

☞ Ans. I know it from being present to many of them.

32. Ques. How many will you swear to as having seen Wells administer it?

☞ Ans. I cannot say.

33. Ques. Can you say whether one or a hundred?

Ans. It was more than one, and I don't think it was a hundred.

☞ 33^b Ques. How many more than one?

☞ Ans. I cannot swear as to the exact number.

34. Ques. How many persons did Wells give the gas to that you knew, and what are their names?

☞ Ans. I cannot state any name except J. Gaylord Wells, at present.

35. Ques. How many of the operations you saw performed by Dr. Wells were upon males?

☞ Ans. All of them were on males.

36. Ques. How many of them did you converse with?

☞ Ans. I cannot tell.


37. Ques. Did you converse with any of them?

☞ Ans. I did.


38. Ques. Were they citizens of Hartford?

☞ Ans. I could not say whether all were citizens of Hartford?


39. Ques. Were any of them, except J. G. Wells?

Ans. My impression is some of them resided here. 

40. Ques. Have you ever conversed with them since ?

Ans. I have met but very few of them—don't recollect conversing with any one, except J. G. Wells. 


41. Ques. Which of them have you met ?

Ans. I do not recollect the names of any one. 


42. Ques. Who generally assisted Wells, besides yourself, in extracting teeth ?

Ans. I do not know ; he required but little assistance.

43. Ques. When did you first administer nitrous oxyd for extracting teeth ?

Ans. Before the 1st of January, 1845. 

44. Ques. What was the name of the first patient ?

Ans. I don't remember ; we charged nothing during these experiments, and I have no means of knowing. 

45. Ques. How long did you continue to extract teeth without any charge ?

Ans. I should think for two or three weeks after Wells got up the apparatus.

46. Ques. Was your first experiment on a male or female ?

Ans. On a male.

47. Ques. Can you state the name of the second person, and whether a male or female, aged or young, a citizen or a stranger ?

Ans. Cannot state the name. I think it was a male, as all our first experiments were on males. I do not recollect the age, or whether a citizen or stranger ; I think a citizen, as pretty much all our subjects were citizens, at that time.

48. Ques. Who was the third person ?

Ans. I can't tell the person's name.

49. Ques. Can you fix any definite time when you began to charge ?

Ans. I cannot state the exact time when we began to receive pay.

50. Ques. Was it before or after Wells went to Boston ?

Ans. I cannot fix the time as before or after ; my impression is it was after.

51. Ques. Is there anything in your books to fix the time ?

Ans. Yes ; there is to fix a time, but I cannot say it was the first time, as I might have been paid.

52. Ques. Will you please produce them ?

Witness brings in his book.

53. Ques. Have you any entry of any charge in the month of January, 1845 ?

Ans. I do not see any, at present. I now find one of January 23, 1845.

54. Ques. Please state the manner of keeping your books ?

Ans. I keep no regular journal and ledger. I intend to do a cash business ; when a person has work done, and does not pay, I enter it. I enter all the work for filling, whether paid or not. When I do not finish the work, I make an entry, and leave a space ordinarily, if they make another engagement to come in a few days ; and when they come, I enter the charge directly under the former charge, although there may be a page of charges made between the time of the two charges, which are so put together. When the space is

filled up, if it don't embrace all the charges, I turn over to the next blank leaf, and give another space. If a person has any filling done, I enter it on my book ; and when he pays, I balance it, and square the account.

55. Ques. Do you not leave space enough to enter down what a patient might have for a year ?

Ans. Possibly I do. I sometimes leave from one-eighth to half a page.

56. Ques. Do you not, if occasion requires, put all the dates for a year in this one-eighth or one-half page so left ?

Ans. All I do for that person, provided the place is not filled up unless he pays the bill. If he doos pay the bill, a new account is opened on the day his new account commences.

57. Ques. Please look at page 81. Say whether the charge of January 23d is on that page ?

Ans. It is. Please have charge marked by the commissioner.

58. Ques. Have you had said charge marked by the commissioner ?

Ans. I have.

59. Ques. Please look at this charge, and see if the words "he felt no pain," is not interlined between that charge and the previous one.

Ans. It is.

60. Ques. Have you examined your books thoroughly, and do you find any other charge before or in the month of January, 1845, where you extracted teeth under the influence of nitrous oxyd ; if yea, please exhibit the charge ?

Ans. I have no other charge before or in the month of January.

61. Ques. Have you any such charge in the month of February, 1845 ?

Ans. I believe not.

62. Ques. Have you any such charge in the month of March, 1845 ?

Ans. I have.

63. Ques. To whom did you administer the gas in March, 1845 ?

Ans. To Miss Elizabeth Williams.

64. Ques. For what purpose ?

Ans. For extracting teeth.

65. Ques. Was the operation successful ?

Ans. I don't remember, but think it was. I have no record as to the circumstances ; nor do I recollect whether I took out one tooth or more.

66. Ques. Will you please exhibit your book to commissioner, and have charge to Miss Williams marked ? (Book exhibited, and charge marked E. S.) Have you any such charge in the months of April, May, or June, 1845 ?

Ans. I have none.

67. Ques. Have you any such charge in the month of July, 1845 ; if yea, what day in the month ?

Ans. I have a charge July 26, 1845.

68. Ques. Will you please produce your book, and have the charge marked by the commissioner ?

(Book exhibited, and charge marked E. S., page 131.)

69. Ques. Will you state exactly what the charge is on your book, and to whom?

Ans. The charge is to Wm. H. Burleigh, 1845, July 26. "To extracting tooth and fang, having administered to him nitrous oxyd or exhilarating gas, by which influence he experienced no pain whatever," \$1 50. See Burleigh's certificate as to same operation by Wells, page 168.

70. Ques. Was not all the words in said charge, after the word *fang*, interlined, or written subsequently to the other part of said charge, and with different ink?

Ans. It was written at the time the charge was made, on the day the charge bears date, and all written at one time.

71. Ques. Have you any other such charge in July, 1845?

Ans. I have.

72. Will you please produce your book, and have the charge marked by the commissioner? (Book exhibited and charge marked E. S., page 93.)

73. Ques. Will you state what this charge is?

Ans. Mr. G. S. Beach, 1845, July 26th, "to extracting tooth, after administering nitric oxyd gas."

74. Ques. Have you any other charge, to any person, in July, 1845?

Ans. I believe not.

75. Ques. Have you any memoranda on your book, in July, with reference to having administered the nitrous oxyd in dental operations? if yea, please give it exactly, and the page.

Ans. On page 131 I have the following entry, under the charge to Wm. H. Burleigh: "I extracted 7 teeth this P. M., the patients being under the influence of this gas; they all declared they felt no pain."

76. Ques. In taking out the 7 referred to in the memorandum, did your count the teeth extracted from Burleigh and Beach?

Ans. I cannot tell.

76. Ques. When was your next charge?

Ans. September, between the 5th and 8th, 1845.

77. Ques. Will you please present your book and have the charge marked by the commissioner?

(Book exhibited and charge marked E. S., on page 141.)

78. Ques. Will you please state the charge?

Ans. 1845, date omitted, to R. G. Drake, "to extracting tooth after administering nitric oxyd gas, \$1."

79. Ques. When is your next charge?

Ans. September 10th, 1845.

80. Ques. Please produce your book and have charge marked?

(Book exhibited and charge marked E. S., page 142.)

81. Ques. Will you state that charge?

Ans. Wm. S. Thompson, September 10th, 1845, "to extracting tooth, after administering nitric oxyd gas, (had to make it for him alone,) \$2."

82. Ques. When is your next charge?

Ans. March 13th, 1846.

83. Ques. Will you produce your book and have this charge marked?

(Book produced and charge marked E. S., on page 175.)

84. Ques. Was this charge made on the 13th of March, 1846?

Ans. Yes.

85. Ques. Was not this charge interlined after you had carried Richardson's account to page 223 of your book?

Ans. I think not; but I omitted to carry out the charge until after I had drawn the line for footing up, and the figure 1 is crowded near the figure 2 of the last charge.

86. Ques. To whom is this charge made?

Ans. To E. B. Richardson.

87. Ques. Did not Richardson and Thompson request you to make the gas and administer it to them separately?

Ans. Yes, sir.

88. Ques. When is your next charge, and to whom?

Ans. My next charge is July 17th, 1846, to Benj. Webster.

89. Ques. Will you present your book and have said charge marked by the commissioner?

(Book produced, charge marked E. S., page 210.)

90. Ques. Please state the charge.

Ans. "To extracting two teeth, by giving nitric oxyd gas, \$1."

91. Ques. Did Mr. Webster request you to prepare and administer the gas to him; and did you not advise him that it was somewhat unsafe?

Ans. He requested me to give it to him; whether I had any made or not at the time, I cannot say; I should not have given it if he had not requested it. I do not think I advised him it was unsafe, for I never considered it unsafe, if pure.

See his deposition of Nov. 1849, p.

92. Ques. Have you any other charge on yourbook; if yea, when and to whom?

Ans. I have one, made November 2d, 1846, to E. B. Richardson.

93. Ques. Please produce your book and have this charge marked by the commissioner?

Book produced; charge marked E. S., page 223.

94. Ques. Please state this charge, and whether your last?

Ans. I believe it is the last. "To extracting tooth, by nitric oxyd gas, \$1."

95. Ques. How many patients, in all, did you administer nitrous oxyd to?

Ans. It is impossible for me to tell, any more than the number of teeth I have extracted without using it.

96. Ques. How many times did you administer it in the winter of 1845?

Ans. I cannot tell the exact number of times—quite a number.

97. Ques. What do you mean by quite a number?

Ans. It might range from ten to fifty.

98. Ques. Do you mean to say you administered the gas in January and February, 1845, to from ten to fifty persons for dental operations?

Ans. Yes, sir, that is as near as I can get. I think that would cover it.

99. Ques. Will you give the names of the patients, or so many of them as you remember?

Ans. Geo. Robinson's son is the only one I now recollect?

100. Do you mean to say that you administered the nitrous oxyd as many as ten times in January and February, 1845?

Ans. I do.

101. Ques. Who was present at any time when you administered it?

Ans. I cannot say; sometimes one, sometimes half a dozen were in my office when it was given.

102. Ques. Did any of these patients ever detain you, in consequence of their being excited, or any other cause resulting from the administration of nitrous oxyd?

Ans. I do not remember any aggravated or serious cases.

103. Ques. Did you ever administer nitrous oxyd for the purpose of extracting teeth, and not succeed?

Ans. I do not recollect.

104. Were not some of the persons so excited you could not control them without assistance?

Ans. No.

105. Ques. Do you mean to say that all these cases, from ten to fifty, in January and February, 1845, were perfectly successful?

Ans. They were successful, so far as the effect of the gas was concerned; they might not be successful for the number of teeth sometimes necessary to be extracted.

106. Ques. What do you mean by "not successful for the number of teeth necessary to be extracted?"

Ans. I might give it to a patient who wished three or four teeth extracted, and only get out a part before he would come to so as to feel or suffer pain.

107. Ques. What was the first dental operation you saw Dr. Wells perform after he returned from Boston in January, 1845, while his patient was under the influence of nitrous oxyd?

See his Ans. to Ques. 140, 141, and 142, p. 103.

Ans. I don't remember.

108. Ques. Will you swear he performed any after his return in 1845?

Ans. I can't directly swear that he did. My impression is that he did.

109. Ques. Upon whom?

Ans. I don't remember any person to whom he gave it.

110. Ques. Did you make an arrangement with Dr. Wells to take his dental business in, or about 1st April, 1845?

Ans. He assigned his business to me at one time. The date I cannot now tell. He gave me a card which was published in the Courant or Times, or both.

111. Ques. Were you not the first person he transferred his business to after his return from Boston, and was not his office the adjoining room to yours; and how long had his office been there?

Ans. I don't know of his transferring his business except to me at any time. His office was adjoining mine, in the same building and on the same floor. His office was there in 1844, perhaps earlier.

112. Ques. When was the first arrangement you made with him to divide profits?

Ans. I never made any arrangement to divide profits except when he transferred to me his business. I agreed to allow him a certain per cent. on business done for his patrons. I do not recollect the per cent., or that I paid him anything.

113. Ques. Did not Dr. Wells occupy the room next you until he transferred his business to you?

Ans. It is my impression he did; cannot speak positively as to the time he transferred it.

114. Ques. Who succeeded Dr. Wells in that office?

Ans. I do not recollect; there was a barber in there, either before or after.

115. Ques. Was the gas apparatus in Wells's room moved into your room before or after he went to Boston?

Ans. About the time he left. I think the barrel was the same he had. I had some of his ammonia. I do not recollect whether I had his retorts or not; I used to break them and buy new ones.

116. Ques. Do you know Truman Smith?

Ans. I know the Hon. Truman Smith.

117. When was he last in your office?

Ans. He has been there three or four times; the last time was some day last week.

118. Ques. When was the first time he was there?

Ans. I think it was last week.

119. Ques. Who was present?

Ans. Geo. A. Tomlinson.

120. Ques. Any body else; did any one come with him?

Ans. I think no one came with him.

121. Ques. Did you have an interview with him at any other place or places?

Ans. I did, at Dr. Ellsworth's, about twenty minutes.

122. Ques. What was the subject of conversation in your interviews?

Ans. At the first interview it was about Dr. Wells's discovery, at Dr. Ellsworth's, and another place; at the other it was professional conversation about his own teeth. I had one or two other interviews with Mr. Smith about Wells's discovery.

123. Ques. At whose request?

Ans. At the request of Joseph Wales.

124. Ques. Has Mr. Smith any knowledge you intend to be in Washington this winter?

Ans. He has.

125. Ques. Have you any knowledge he had any interview with any other person respecting Wells' discovery; if so, please name them?

Ans. He had an interview with Mr. Colton. I don't remember any other person.

126. Ques. Have you ever had any litigation with Dr. Morton?

Ans. I had a lawsuit with him.

127. Ques. Have you since that suit been on speaking terms?

Ans. I do not recollect of meeting him, before to-day, since the lawsuit.

128. Ques. How long have you known Dr. Morton, and what knowledge had you of his connexion with Dr. Wells?

Ans. I knew him before he went to Boston with Dr. Wells. When I first knew him he was practising in Farmington. I had seen him as early as the spring or summer of 1842; might have been introduced at that time; think Dr. Wells introduced me to him; it might have been in 1841. I know Drs. Wells and Morton started to go to Boston; do not recollect the date; think it was in the fall or winter of 1842 or 1843.

129. Ques. State any personal knowledge you have that Dr. Morton was a student of Dr. Wells?

Ans. I have no personal knowledge.

130. Ques. Was you a student in dentistry in 1842?

Ans. I was.

131. Ques. Was Dr. Wells a man of general science?

Ans. I should say not. He was not a graduate of any college or medical school.

132. Ques. Can you state, of your own personal knowledge, the cause of the dissolution of the partnership between Wells and Morton?

Ans. I cannot.

133. Ques. Did you consider yourself competent to judge of Dr. Morton's qualifications as a dentist, previous to his going to Boston?

Ans. I think I was.

134. Ques. What were his qualifications as a dentist?

Ans. I don't know of any.

135. Ques. Were you not a student while Dr. Morton was practising in Farmington?

Ans. I was, a part of the time.

136. Ques. Have you any personal knowledge of Dr. E. E. Marcy's cutting out a tumor, from the head of a patient, in 1844 or 1845, under the influence of ether, or any anæsthetic agent?

Ans. I know nothing about it, except what Dr. Marcy told me. I was not present at the operation, and did not see it done.

137. Ques. When did Dr. Marcy tell you this?

Ans. About the time he claimed the operation was done; cannot give the date; that is my impression.

138. Ques. Are you a graduate of medicine?

Ans. No, sir.

139. Ques. Will you state whether the persons you have mentioned, as charged on your books, as having teeth pulled under the influence of nitrous oxyd gas, had the operation performed, in every case, without pain?

Ans. They might, some of them, have had some little feeling; some had none. I judge from their statements.

140. Ques. Do you know of any other persons who administered the gas at this time in dental or surgical operations, from January 23d, 1845, to November 2d, 1846?

Ans. I saw Wells administer it. I know of no other, except by hearsay.

141. Ques. Will you state to whom you saw Dr. Wells administer the gas for dental or surgical purposes, between January 23d, 1845, and November 2d, 1846?

Ans. I do not recollect the name of any one; it is so long since.

142. Ques. How can you say that it was between those dates?

Ans. I know it by this: December 11th, 1844, I extracted a tooth for Dr. Wells, and in January following he went to Boston to exhibit his discovery there. On his return, he used the gas at different times from my apparatus, in the back office. From April 1st, 1845, to September 1st, 1845, I think he intermitted his dental business. He gave me a card, and I was to do certain business which he had engaged, and allow him a per centage; and I find I did allow him twenty-five dollars up to September 1st, 1845, at which time he re-

See page 93, where he swears to the fact.

See Answers to Ques's 107, 108, and 109, p. 101.

Contradicted by Wells, p. 11; by same, p. 119; by Ellsworth, p. and by Cooley, pp. 6 and 7, answer 6th, and by Wells, 1st pamphlet.

sumed his business; and when he was in business, he was in the habit of giving this gas.

143. Ques. Did you ever see Dr. Wells administer any of the gas that he took from your back office, to any person, for dental purposes, during this time?

Ans. I cannot positively say whether I was or was not present when he so used gas from my apparatus; my impression is I did so see him use it.

144. Ques. Are you willing to swear you saw him use it for dental purposes, during that time?

Ans. It is my conviction I did see him so use it, during that time.

145. Ques. In what business was Dr. Wells engaged between April and September, 1845?

Ans. I do not remember.

146. Ques. How long did he continue his business after he resumed it on the 8th of September, 1845?

Ans. I cannot tell.

147. Ques. Do you use nitrous oxyd gas in your dental operations at this time?

Ans. No.

See p. 92.

148. Ques. How long since you have made general use of it for dental purposes?

Ans. I have not used it since chloroform was introduced into practice.

Cross-examination.

149. Ques. by Welch, attorney for Mrs. Wells. Was you a practising dentist in Hartford during the years 1844, 1845, and 1846?

Ans. I was.

150. Ques. Where was your office?

Ans. 180½ Main street—next door, and an adjoining room to that occupied by Dr. Horace Wells, on the same floor.

151. Ques. Was you intimately acquainted with the late Dr. Horace Wells, and were you and he often back and forth in each other's offices?

Ans. I was intimately acquainted with him, and we were in the habit of being in each other's offices frequently.

152. Ques. Did not Dr. Wells express to you his opinion that nitrous oxyd gas might be used to prevent pain under dental and surgical operations, prior to the time alluded to by you in your answers to the fifth and sixth interrogatories, when you, Cooley, Colton, and others, met in Dr. Wells's office?

Ans. He did.

153. Ques. When and where did he express this opinion?

Ans. On the 10th of December, 1844, after Colton's lecture at Union Hall; on the evening of that day. He came into my office after the lecture, and expressed the opinion there.

154. Ques. Was that the evening alluded to in your answer to the eighteenth interrogatory?

Ans. It is.

155. Ques. Was S. A. Cooley present at this interview?

Ans. No.

156. Ques. Was there any allusion made to Cooley, during this interview?

Ans. I think he alluded to Cooley and some others as having taken the gas, and some one having injured himself while under its influence, and was not sensible of it at the time.

157. Ques. Did Dr. Wells, at this time, intimate that the idea of using nitrous oxyd gas, to prevent pain, had been communicated to him by any one else?

Ans. He did not.

158. Ques. Did you ever hear him intimate anything of the kind?

Ans. I never did.

159. Ques. Did not Dr. Wells always represent his discovery as the result of his own observations and experiments, without any suggestions from any person whatever?

Ans. He always claimed the idea as being his own, and the result of his own observations.

160. Ques. Did Dr. Wells, on the evening of the 10th of December, 1844, suggest the experiment of having a tooth extracted while under the influence of nitrous oxyd gas?

Ans. He did.

161. Ques. Did you accordingly extract a tooth for him, the next day, at his request?

Ans. I did.

UNITED STATES OF AMERICA, }
District of Connecticut. } ss.

I, Erastus Smith, a commissioner duly appointed by the Circuit Court of the United States, for the District of Connecticut in the Second Circuit, under and by virtue of the Acts of Congress, entitled "An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States," passed February 20th, 1812, and the Act of Congress, entitled "An Act, in addition to an Act, entitled 'An Act for the more convenient taking of affidavits and bail in civil causes, depending in the Courts of the United States,'" passed March 1st, 1817, and the Act, entitled "An Act to establish the Judicial Courts of the United States," passed September 24th, 1789, *do hereby certify*, that the reason for taking the foregoing deposition is, and the fact is, the witness is material and necessary in the cause in the caption of the said deposition named.

I further certify, that a notification of the time and place of taking the said deposition signed by me, was made out and served on Elizabeth W. Wells and Charles Wells, to be present at the taking of the deposition, and to put interrogatories, if he or they might think fit.

I further certify, that on the 30th day of November, in the year of our Lord one thousand eight hundred and fifty-two, I was attended by counsel for Dr. Morton and Mrs. Wells and Charles Wells, until the 9th of December, 1852, and by the witness, who was of sound mind and lawful age, and the witness by me first carefully examined and cautioned, and sworn to testify the truth, the whole truth, and nothing but the truth, and the deposition was by me reduced to writing, in the presence of the witness, and from his statement, and after carefully reading the same to the witness. I have retained the said deposition in my possession for the purpose that the counsel of Mrs. Wells might fully cross-examine ; but said counsel and said Riggs neglect and refuse to be further present, and I am obliged to close the same without the witness signing the same.

And I do further certify, that I am not of counsel nor attorney for either of the parties in the said deposition and caption named, nor in any way interested in the event of the cause named in the said caption.

In testimony whereof, I have hereunto set my hand and seal, this eighteenth day of December, in the year of our Lord
 [L. s.] *one thousand eight hundred and fifty-two, and of the independence of the United States the seventy-seventh.*

ERASTUS SMITH.

*United States Commissioner, duly appointed by the
 Circuit Court of the United States for the
 District of Connecticut in the Second Circuit.*

The signers of the three following certificates, marked A, B, and C, could not be found, and consequently could not be summoned before the U. S. Commissioner :

A.

I, the undersigned, resident of Hartford, Connecticut, do hereby testify, that, more than two years since, I submitted to the operation of having a tooth extracted while under the influence of nitrous oxyd gas. According to the best of my recollection, this was in the month of November, 1844. The gas was given, and the tooth extracted, by Horace Wells, dentist, of Hartford ; and I do further testify that the operation was attended with no pain whatever.

MYLO LEE.

STATE OF CONNECTICUT, }
Hartford County, } ss.

CITY OF HARTFORD, *March 26, 1847.*

Then personally appeared before me Mylo Lee, signer of the foregoing affidavit, and made solemn oath that the same was true.

[L. s.] Given under my hand, and the seal of said city,
 A. M. COLLINS, *Mayor.*

B.

HARTFORD, *March 26, 1847.*

I hereby testify that, more than two years prior to this date, on being informed that Horace Wells, dentist, of this city, had made a valuable discovery, by which means he could extract teeth without pain to the patient, which consisted in the use of stimulating gas, or vapor, I inhaled the exhilarating gas, and, under its influence, had six extracted without the least pain. I would further state, that for more than eighteen months from the time I first submitted to this operation by the application of gas, I heard no other name mentioned as the discoverer, except that of the above-named Horace Wells.

J. GAYLORD WELLS,
 184½ Main street.

STATE OF CONNECTICUT, }
Hartford County, } ss.

CITY OF HARTFORD, *March 26, 1847.*

Then personally appeared before me J. Gaylord Wells, of this city, who signed the within deposition, and made solemn oath that the same was true.

[L. s.] Given under my hand, and the seal of said city,
 A. M. COLLINS, *Mayor.*

C.

A little more than two years since, I learned that Dr. H. Wells, dentist, of this city, had made the discovery that by the use of an exhilarating gas or vapor, he could render the nervous system insensible to pain under severe surgical operations, and that he was using it in his practice with success. Having an opportunity to witness its effect upon several persons, during the operation of extracting teeth, I was so delighted and surprised with its manifest success, that I desired a trial of it upon myself. The gas was accordingly administered, and two curious teeth were extracted from my lower jaw, without the *least suffering* on my part; though ordinarily, owing to the firmness with which my teeth are fixed in my jaw, I suffer extreme pain from their extraction.

WM. H. BURLEIGH,
Editor of the "Charter Oak."

HARTFORD, *March 25, 1847.*

STATE OF CONNECTICUT, }
Hartford County, } ss.

CITY OF HARTFORD, *March 26, 1847.*

Then personally appeared before me William H. Burleigh, signer of the foregoing affidavit, and made solemn affirmation that the same is true.

[L. s.] Given under my hand, and the seal of said city,
A. M. COLLINS, *Mayor.*

Affidavit of U. S. Commissioner, setting forth the names of Mrs. Wells's witnesses who refused to testify.

I, Erastus Smith, of Hartford, depose and say, that as Commissioner of the United States Circuit Court for the District of Connecticut, I, on the 19th day of November, 1852, issued a subpœna to Dr. H. Allen Grant, James B. Shultas, and W. S. White, among others, to appear before me, and testify in relation to the ether discovery, in the matter of the memorial of W. T. G. Morton; and on the 4th of December I issued a like subpœna to Thomas S. Williams and Dr. John S. Butler.

But neither of said persons did or would testify in relation to said matter, though said Grant and said White came to my office while others were being examined, but left without being sworn or offering to testify in the matter.

ERASTUS SMITH.

DISTRICT AND STATE OF CONNECTICUT, ss.

HARTFORD, *December 28, 1852.*

Personally appeared Erastus Smith, who hath subscribed the within deposition, and made solem oath to the truth of the same before me.

[L. s.]

ANDREW T. JUDSON,
*Judge of the United States for the
District of Connecticut.*

*Affidavit of U. S. Marshal that Mrs. Wells's witnesses were
dnly notified.*

I, Chester Adams, of Hartford, of lawful age, depose and say—that I am a Deputy of the Marshal of the United States for the District of Connecticut, and that on the 19th, 21st, and 22d of November, 1852, by virtue of a subpœna addressed to the Marshal by Erastus Smith, Esq., a Commissioner of the United States for the said District of Connecticut, I summoned Dr. H. Allen Grant, James B. Shultas, and William S. White, of Hartford, among others, to appear before said Smith, on the 22d of December, and testify in the matter of the ether discovery; and tendered and paid each of them \$1³⁵/₁₀₀ as fees of travel and attendance.

And on the 5th day of December, 1852, by virtue of a like subpœna, I summoned Thomas S. Williams, but he refused to take the witness fee, and Dr. John S. Butler and William W. Ellsworth, in the same subpœna, I found sick, and unable to attend and testify, and did not summon them.

CHESTER ADAMS.

DISTRICT OF CONNECTICUT, }
County of Hartford, } ss.

HARTFORD, *December 28, 1852.*

Then personally appeared Chester Adams, and made solem oath to the truth of the foregoing affidavit, by him subscribed before me.

[L. s.]

ERASTUS SMITH,
*Commissioner of U. S. Circuit Court
for the District of Connecticut.*

This letter and another on page 130, is introduced to show Wells did not visit Paris to claim the ether discovery.

Letter from the foreign correspondent of the New York Journal of Commerce, published in Boston Transcript March 20.

PARIS, March 1st, 1847.

The all-absorbing topic of conversation in the saloons of Paris, and the all engrossing discussions in the learned and scientific societies here, as in most of Europe, is our "American discovery" of performing surgical operations without pain. All the nations—I might almost say, all the individuals, are trying to claim the merit of the discovery.

Numberless communications are published from persons who knew all these things long ago—twenty, thirty, and forty years since—yet, to the present moment, they have not succeeded in wresting the honor of this discovery (the greatest ever given to man since the days of "Jenner,") from the western world.

Dr. Ells-
worth's com-
munication.

See Ellsworth,
p. 75.

I have seen, in your paper of the 30th December last, a letter from Dr. Marcy, which gives the whole honor to Dr. Horace Wells, dentist of Hartford. I have also seen in the 6th January, Dr. Jackson's reply, and the rejoinder of Dr. Marcy, in the 8th. In the "Boston Medical and Surgical Journal" I see a letter which gives the discovery to Dr. Wells. These are things which I hope you will settle fairly on your side of the water, and let "Cæsar have the things which are Cæsar's."

Imagine to yourselves, Messrs. Editors, a man to have made this *more than brilliant discovery*, visting Europe without bringing with him the proofs.

Very truly yours,
BREWSTER.

Statement No. 4, of Dr. Marcy.

I have been requested, by a relative of the late Dr. Horace Wells, to repeat again the facts relating to my connexions with the discovery of the anæsthetic properties of nitrous oxyd gas and the vapor of sulphuric ether. This I do with great pleasure, trusting that justice will finally be done to the memory of Dr. Wells, the undoubted discoverer of anæsthetic agents in surgical operations.

I hereby certify and declare, that during the month of October, 1844, I witnessed the extraction of a tooth from the person of F. C. Goodrich, Esq., of this city, by Dr. Horace Wells, after nitrous oxyd gas had been inhaled, and without the slightest consciousness of pain on the part of the gentleman operated upon. Not only was the extraction accomplished without pain, but the inhalation of the gas was effected without any of those indications of excitement, or attempts at muscular exertion, which so commonly obtain when the gas is administered without a definite object, or previous mental preparation.

By this experiment, two important, and to myself, entirely new facts, were demonstrated: 1st, that the body could be rendered insensible to pain, by the inhalation of a gas or vapor, capable of producing certain effects upon the organism; and 2d, when such agents were administered to a sufficient extent, for a definite object, and with a suitable impression being previously produced upon the mind, that no unusual mental excitement, or attempts at physical effort, would follow the inhalation.

Witnessing these wonderful phenomena—these new and astounding facts—the idea at once occurred to me, whether there were not other substances analogous in effect to the gas, and which might be employed with more convenience, and with equal efficacy and safety. Knowing that the inhalation of sulphuric ether vapor gave rise to precisely the same effects as those of the gas, from numerous former trials with both these substances, I suggested to Dr. Wells the employment of the vapor of rectified sulphuric ether, at the same time detailing to him its ordinary effects upon the economy, and the method of preparing the article for use. Our first impression was that it possessed all the anæsthetic properties of the nitrous oxyd—was equally safe, and could be prepared with less trouble; thus affording an article which was not expensive, and could always be kept at hand. At the same time I told Dr. Wells that I would prepare some ether, and furnish him some of it to administer, and also make a trial with it myself, in a surgical case which I expected to operate upon in a few days. Not long after this conversation, (to which allusion is made by Mr. Goodrich in his affidavit,) I administered the vapor of rectified sulphuric ether, in my office, to the young man above alluded to, and after he had been rendered insensible to pain, cut from his head an encysted tumor, of about the size of an English walnut. The operation was entirely unattended with pain, and demonstrated to Dr. Wells and myself, in the most conclusive manner, the anæsthetic properties of ether vapor. Very little was thought of this particular case, at that time, by Dr. Wells or myself, as neither we or Drs. Riggs, Ellsworth, &c., had entertained the slightest doubt of the efficacy of ether vapor, since the

¹ See publication 30th Dec. 1846, p. 118, Jan. 7, 1847, p. 116, where the fact is not stated, but simply that the properties of ether were discovered, it having been suggested to Wells.

first exhibition of the gas, and especially after the discussion above referred to, in Dr. Wells's office, in the presence of Mr. Goodrich. But the point which Dr. Wells now wished me to determine was, whether this vapor was as safe as the gas. He informed me that Dr. Riggs had told him that he had inhaled both of these substances, when in Washington College, and that it was his impression, from the effects of the two agents upon himself and others, as well as from the views inculcated by Professor Rogers, in his lectures upon these substances before the class, that the inhalation of the ether vapor was more dangerous than that of the nitrous oxyd gas. Accordingly, at the urgent request of Dr. Wells, I read what could readily be procured in relation to both articles, and formed the opinion that the constituents of the gas were more nearly allied to the atmosphoric air, than were those of ether vapor—that the former was more agreeable and easy to inhale than the latter, and upon the whole, was more safe and equally efficacious as an anæsthetic agent. Numerous experiments made with the gas, by Drs. Ellsworth, Beresford, Riggs, Terry, Wells, and myself, since that period, both in large and small operations, fully confirm the opinion I then expressed; and we can only say to those who have so arbitrarily, and, we may add, impertinently, slighted and underrated the properties of this gas, that they have never made trial of this substance, and therefore are incompetent to express an opinion upon the respective merits of these substances.

See p. 114.

If, then, it be asked why Dr. Wells, Riggs, and myself, did not persist in the use of ether vapor, I reply, for the same reasons that are now entertained by those who have used the gas in this city, viz: the superior safety, ease of administration, and equal efficacy of the latter.

I also further declare, that I was aware of the fact of Dr. Wells's visit to Boston, in 1844, for the purpose of communicating his discovery to the faculty of that city. I also had an interview with Dr. Wells, soon after his return from Boston, when he informed me that he had made known to Dr. C. T. Jackson, and Mr. Morton, the anæsthetic properties of the nitrous oxyd gas, the ether vapor, and other analagous substances. He also informed me that he had made an imperfect trial with the gas, before Dr. Warren's class, but that the experiment was not satisfactory, on account of the patient's getting an insufficient quantity of the gas. He further informed me that his discovery, and his whole idea respecting anæsthetic agents, was ridiculed by Dr. Jackson, and other medical men of Boston, but that his former pupil, Morton, swallowed this ridiculous idea greedily, and kept it down until 1846, when he ejected it at Washington, in the form of a patented compound—mark the word—compound, called Lethæon.

See same witness, p. 114, that Morton could not swallow it.

E. E. MARCY.

STATE OF CONNECTICUT }
Hartford county, } ss.

HARTFORD, *December 1st, 1849.*

Personally appeared Dr. E. E. Marcy, of this town, and made solemn oath to the truth of the foregoing affidavit by him subscribed. Before me,

BENNING MANN, Justice of Peace.

Statement, No 1, of Dr. Marcy.

For the Journal of Commerce, December 30, 1846.

SULPHURIC ETHER, &c., IN SURGICAL OPERATIONS.

Messrs. Editors: A number of articles recently made their appearance in the Medical and other journals of Boston, in relation to a discovery purporting to have been made by Dr. Jackson, or a Mr. Morton of that city. We learn also that a "*patent*" has been procured upon the pretended discovery, and that it is now being hawked about as a nostrum. We refer to the use of the sulphuric ether in obviating the pain of surgical operations.

Justice to the real discoverers of this agent, demands that a statement of the facts in the case should be laid before the public, in order that a correct opinion may be formed, and the credit given where it belongs.

In the month of October, 1844, a dentist of Hartford, Connecticut, Horace Wells, Esq., first made use of inhalations of the nitrous oxyd gas, in extracting teeth. The results of his experiments, were, that teeth could be extracted without the slightest consciousness of pain to the individual operated upon. During the same month, the writer of the present article, while witnessing the experiments of the gas, suggested to Mr. Wells the use of sulphuric ether as a substitute for the

nitrous oxyd gas. Being familiar with the effects of both of these agents, and knowing that other operations upon the system were analogous, I first urged upon him the use of the sulphuric ether, as being equally efficacious, and less troublesome to prepare. Upon reflection and more full discussion of the matter, I advised Mr. Wells to abandon the use of the ether and confine himself to the exhilarating gas. My reasons for this advice were: 1st, The effects of the latter continue for a greater length of time upon the system, and thus enable the operator to complete his operation with more facility; and 2d, There seemed to me to be less danger of injurious consequences upon the brain and lungs, than with the sulphuric ether.

See actual experiment afterwards pretended, p. 111.

Some two months after the above circumstance transpired, Mr. Wells visited Boston and had interviews with a Mr. Morton (dentist) and Dr. Charles T. Jackson; to both of whom he communicated the discoveries and facts above named. We are informed by Mr. Wells that both of these gentlemen expressed the greatest surprise and incredulity at his statement—Dr. Jackson alleging that he could not conceive how an “exhilarating substance could produce such an effect.”

See Marcy, p. 112, that Morton swallowed it greedily.

Compare this with the facts which he had witnessed.

Mr. Wells further informed Dr. Jackson that he was sure, from facts which he had witnessed, *“that any agent which should stimulate the nervous system up to a given point, would render the body incapable of feeling pain from an ordinary surgical operation.”*

I also take the liberty of observing that about two years since, I made a communication to Prof. Revere, of this city, upon this subject, requesting him to make it known to Prof. Pattison, in order that he might test the thing. Whether any use was ever made of it, by either of these gentlemen, I am unable to say. That the subject was broached to them, however, previous to any knowledge acquired on experiments made by Dr. Jackson or Mr. Morton, of Boston, we entertain no doubt.

See this witness, p. 112, and consider this in connection with the value of Wells's discovery.

My own opinion in regard to the use of the nitrous oxyd gas, the sulphuric ether, or any other stimulant, which acts upon the system in such a manner as to render the body insensible to external impressions, is, that it is decidedly unsafe, and that in no given case can we be certain that it will not cause congestion of the brain or lungs. I have known the use of both the first named articles to give rise to temporary congestion of the brain and insanity.

This reduces itself to mesmerism, and shows conclusively that no experiments had been made by Marcy, or within his knowledge, tending to establish the purely physical agency in question.

Another fact in relation to the exhilarating gas, &c., is worthy of notice. Under ordinary circumstances, the person who inhales the gas has no control over himself;—but if, previous to his taking the gas, he fixes his mind strongly upon some given purpose, and exercises his will steadily, in order to effect and carry out this purpose, he will, in nearly every instance, be able to control himself and remain quiet. Thus

it is, that a man will inhale the gas, and sit statue-like during the performance of an operation. This fact may seem strange, but we have tested it in many instances, and know that it can, as a general thing, be relied upon.

In regard to any opiates or other articles which may have been added to this sulphuric ether, they are, in my opinion, entirely useless and superfluous. It is the ether, and that alone, which produces the effect.

In conclusion we would say, that for the performance of operations, the nitrous oxyd gas will be found more valuable than any other agent.

E. E. MARCY, M. D.,
356 Broadway, New York.

This letter of Dr. Jackson's is simply introduced to show the connection between the one preceding and following it.

From the New York Journal of Commerce, January 6, 1847.

BOSTON, *January 4, 1847.*

TO THE EDITORS OF THE JOURNAL OF COMMERCE—*Gentlemen* :
A friend has just sent me a slip from your paper of the 30th ult., which requires my notice. It is a letter from E. E. Marcy, M. D., of New York, concerning the discovery of the application of inhalation of vapor of sulphuric ether, for prevention of pain during surgical operations.

I regret that Dr. Marcy should have been led into error, as he evidently has been. I do not know him, nor does he know me, or he would never have made the charges against me that appeared in his communication. I trust that he will make the proper corrections when he learns the facts in the case. He has stated that Mr. Horace Wells, of Hartford, communicated to me a discovery which I claim to have made, viz : that inhalation of vapor of sulphuric ether will produce insensibility to pain, in surgical operations. He intermingles in his discussion of the subject, the application of "nitrous oxyd" or "exhilarating gas," which I have nothing to do with, and which has a directly opposite effect to the vapor of highly rectified sulphuric ether, and seems to regard the discovery alleged to have been made by Mr. Wells, that exhilarating gas would produce insensibility to pain, as identical with that claimed by me. I wish distinctly to state that Mr. Wells

never communicated to me a word about the use of ether vapor, nor did I know that he ever pretended to have made any discovery with regard to it.

I understood that he proposed and made some experiments as to extraction of teeth from patients during their excitement by "nitrous oxyd or exhilarating gas," but I never saw any of his experiments, and merely heard that they had proved unsuccessful, as I suppose they must have been, since I have never known of any attempt to repeat them.

I hope Dr. Marcy will allow me also to disclaim the words he attributes to me, and has marked by quotation points; for I never made use of those expressions, nor did Mr. Wells state in my presence the words attributed to him.

I would also beg leave to call his attention to the fact that the effect of highly rectified ether vapor, when inhaled in the manner employed in this city, does not act as an excitant, but as a sedative of a most decided character, diminishing the pulsation of the arteries, and producing a deep sleep or stupor; effects directly opposite to those resulting from inhalation of exhilarating gas.

The use of *common* sulphuric ether (which contains alcohol,) may have led Dr. Marcy to mistake the character of the pretended discovery.

Respectfully, your obedient servant,
CHARLES T. JACKSON, M. D.

Statement No. 2, of Dr. Marcy's.

For the Journal of Commerce, Jan. 8, 1847.

Messrs. Editors: My attention has been called to a communication in your journal of the 6th instant, from Charles T. Jackson, M. D., of Boston, in reply to a previous article of mine concerning the use of ether vapor, for the prevention of pain during surgical operations. In this communication Dr. J. denies that he has ever received any information from Mr. Wells, in regard to the use of this vapor, and also disclaims another statement which was attributed to him. Now we shall simply add, in regard to this matter, that we received the statements alluded to from Mr. Wells himself, about two weeks since, and we believed them, for the following reasons:

1st, The use of the vapor of rectified sulphuric ether was suggested to Mr. Wells more than two years ago. From experiments and facts which came under his observation at this time, he became fully aware of its properties in preventing pain during surgical operations, and the comparative merits of this article and the nitrous oxyd gas were often discussed. It was through my advice that he continued the use of the gas instead of the ether vapors.

But no case appears of any use of ether prior to the discovery by Morton.

Soon after these discoveries, Mr. Wells visited Boston for the avowed purpose of making them known in that city, and upon his return he asserted that he had communicated with Dr. Jackson and Mr. Morton upon the subject, and received no encouragement. If the ether was not alluded to in any of these interviews, we think it truly singular, knowing as we do, that Mr. W. was at this time aware of its properties.

Be this, however, as it may, one fact is incontrovertible, viz: that inhalation of the vapor of the rectified sulphuric ether for preventing the pain of surgical operations, was suggested to Mr. Wells, by the writer of this article, more than two years since. If Dr. Jackson suggested the use of it *previous* to that time, he is the discoverer; if he did not, then he has no claim to the discovery.

See above, and actual experiments afterwards pretended.

In regard to the experiments performed by Mr. Wells, with the gas, both previous and subsequent to his visit to Boston, we assure Dr. J. that they were numerous and entirely satisfactory.

See Wells's statement, p. 11, 119, and Cooley, pp. 6 & 7.

Dr. J. asserts that there is no analogy between the effects of exhilarating gas and the vapor—that the former is a *stimulant*, while the latter is a *sedative*—that the vapor diminishes the pulsation of the arteries, and produces stupor, while the gas has an opposite effect. Upon this point, we beg leave to differ with the doctor, and in support of our views, we quote from an article in the Boston Medical and Surgical Journal of December 9th, by John C. Warren, M. D.

“October 18th, an operation was done by Dr. Hayward on a tumor of the arm in a female patient at the hospital. The respiration of the gas was continued during the whole of the operation. There was no exhibition of pain, excepting some occasional groans during its last stage, which she subsequently stated to have arisen from a disagreeable dream. *Noticing the pulse, in this patient, before and after the operation, I found it to have risen from 80 to 120.*” Dr. Warren further observes, on page 378, “*that the action of the heart is remarkably accelerated, in some cases, but not in all.*”

The first effect of the vapor is undoubtedly stimulating; but if the inhalations are continued for several minutes, the patient is reduced to a state very similar to a man who is thoroughly intoxicated. The first effect of the nitrous oxyd gas is also stimulating; but continue the inhalations for a sufficient length of time, and the same stupor occurs which results from

the use of the ether. Both of these substances act directly, and in a similar manner upon the cerebral system, and the consequent insensibility is proportionate to the degree of cerebral affection.

See Riggs,
Cooley, and
others, 11 Dec.

In conclusion, we again repeat,—1st, The discovery of the inhalation of a gas which would prevent pain during surgical operations, *was first made by Mr. Wells, of Hartford, Connecticut, in October, 1844.*

See previous
experiment af-
terwards pre-
tended, p. 111.

2nd, That the use of the vapor of sulphuric ether was suggested to him a short time afterwards, and that its properties, as well as those of the gas, were at that time fully discussed and appreciated.

Notice that
he claims to be
joint discoverer.

3d, Simple justice should induce the public to give the credit of these discoveries to the men who first made known and demonstrated to the world that the inhalation of a gaseous substance would render the body insensible to the pain of surgical operations; for in all probability, had Mr. Wells not made his discovery, neither myself nor any other person would ever have thought of using other vapor for the same purpose.

Respectfully yours,

E. E. MARCY, M. D.

New York, January 7th, 1847.

Dr. Wells's second publication.

This appears in Galignani's Messenger, which was republished in the Boston Atlas, April 2.

“PARIS, February 17, 1847.

Dr. Ells-
worth's com-
munication.

SIR: As you have recently published an extract from the Boston Medical and Surgical Journal, which recognizes me as the discoverer of the happy effects produced by the inhalation of exhilarating gas or vapor for the performance of surgical operations, I will now offer some suggestions in reference to this subject. Reasoning from analogy, I was led to believe that surgical operations might be performed without pain, by the fact that an individual, when much excited from ordinary causes, may receive severe wounds without manifesting the least pain; as, for instance, the man who is engaged in combat may have a limb severed from his body, after which he testifies that it was attended with no pain at the time; and

so the man who is intoxicated with spirituous liquor may be treated severely without his manifesting pain, and his frame seems in this state to be more tenacious of life than under ordinary circumstances. By these facts I was led to inquire if the same result would not follow by the inhalation of some exhilarating gas, the effects of which would pass off immediately, leaving the system none the worse for its use. I accordingly procured some nitrous oxyd gas, resolving to make the first experiment on myself, by having a tooth extracted, which was done without any painful sensations. I then performed the same operation for twelve or fifteen others, with the like results; this was in November, 1844. Being a resident of Hartford, Connecticut, (U. S.,) I proceeded to Boston the following month, (December,) in order to present my discovery to the medical faculty—first making it known to Drs. Warren, Hayward, Jackson and Morton, the two last of whom subsequently published the same, without mention of our conference. Since this discovery was first made I have administered nitrous oxyd gas and the vapor of ether to about fifty patients, my operations having been limited to this small number in consequence of a protracted illness which immediately ensued on my return home from Boston, in January, 1845. Much depends on the state of mind of the patient during the inhalation of gas or vapor. If the individual takes it with a determination to submit to a surgical operation, he has no disposition to exert the muscular system; whereas, under other circumstances, it seems impossible to restrain him from over exertion; he becomes perfectly uncontrollable. It is well to instruct all patients of this fact before the inhalation takes place. The temperament and physical condition of the patient should be well marked before administering the vapor of ether; persons whose lungs are much affected should not be permitted to inhale this vapor, as serious injuries have resulted from it in such cases. Nitrous oxyd gas, or protoxyd of nitrogen, is much less liable to do injury, and is more agreeable to inhale, producing at the same time equal insensibility to all painful sensations. It may be taken without the least inconvenience by those who become choked, almost to strangulation, with ether; in fact, I have never seen or heard of a single instance where this gas has proved in the least detrimental. This discovery does not consist in the use of any one specified gas or vapor; for anything which causes a certain degree of nervous excitement is all that is requisite to produce insensibility to pain; consequently, the only question to be settled is, which exhilarating agent is least likely to injure the system. The less atmospheric air admitted into the lungs with, any gas or vapor, the better—the more satisfactory will be the result of the operation. Those who have been accustomed to use much intoxicating beverage cannot be easily affected in this manner. With cases of dislocated

See his statement, p. 11, the last thing before he left for Paris, and 2 months before this, (since when he had crossed the ocean and had been engaged in purchasing pictures) when the whole number claimed was but 12 or 15, & no claim made to the use of ether.

This contradicted Riggs, p. 103, Ques. 195.

This proves that he had not used ether, because it would have produced death if a person had been etherised sufficiently to perform a surgical operation without atmospheric air.

joints, the exhilarating gas operates like a charm; all the muscles become relaxed, and but a very little effort will serve to replace the limb in its socket, and while the operation is being performed the muscles do not contract as when in the natural state, but are as easily managed as those of a corpse. Allow me to add that I have had no opportunity of reading any of the French professional reports or discussions on this subject. I shall remain in Paris until the 27th inst., and in the interval I should be pleased to impart such information as I may have acquired by a close observation of the various phenomena connected with this interesting subject.

HORACE WELLS.

This letter is introduced to show that Wells admitted the correspondence on pages 8 and 9.

To the Editor of the Boston Post.

HARTFORD, April 19, 1847.

I have just seen a long article in your paper of the 7th inst., signed E. W., which I will answer in one word. The letter which is there introduced with my signature was written in answer to one which I received from Dr. Morton, who represented to me that he had discovered a "compound," the effects of which, as described by him, entirely eclipsed those produced by nitrous oxyd gas, or sulphurate ether, he stating that his compound would invariably produce a sound sleep, the length of which was wholly optional with the operator; that he had not made a single failure, in one hundred and sixty cases, &c., &c. He also stated that he had obtained a patent for this compound. I accordingly started for Boston to learn more of this improvement on my discovery, with which I had made him acquainted long before.

While at his office I saw the (so called) compound administered to a patient; it apparently had the same effect as the gas, which I had many times administered for the same purpose. Before I left for home, the gas was given to several other patients, with but partial success—at least, so said the patients with whom I conversed. I then inquired about his patent, and found, to my surprise, that he had not obtained one, nor even made an application for one; this being done, at a subsequent period, as the date of his specifications and patent clearly show. Respecting the interview which E. W. had with the Hon. James Dixon at Washington, I am informed by Mr. Dixon that the statement of E. W. in the article referred to, is a gross misrepresentation of the truth, and if necessary, he will sign a certificate to that effect.

Respectfully,

HORACE WELLS.

Deposition of Horace Cornwall, Esq., touching the taking of certain testimony by Dr. Ellsworth, agent of Mrs. Wells, and the refusal to permit Dr. Morton's attorney to be present, or to know the names of witnesses, &c.

I, Horace Cornwall, of Hartford, of lawful age, depose and say: That I am attorney and counsellor at law, and that on the 15th day of November, 1852, in behalf of Dr. Wm. T. G. Morton, of Boston, caused a notice to be served upon Mrs. Elizabeth W. Wells, of Hartford, widow of the late Dr. Horace Wells, by Gen. A. M. Waterman, sheriff of Hartford county, with reference to taking testimony in the matter of the ether discovery. As I was desirous of giving Mrs. Wells an opportunity to be ready and present at the taking of testimony, I sought General Waterman, on his return from serving the notice, to see what reply she made. General Waterman informed me that Mrs. Wells said she was all ready, except that her counsel, Truman Smith, was not here. From other sources I learned that Mr. Smith was at Litchfield, thirty miles distant from Hartford; and accordingly, on the 19th of November, 1852, I caused a notice to be issued by Erastus Smith, Esq., a commissioner of the United States for the district of Connecticut, which I hereto annex, and it is marked (A.)

In pursuance of said notice, on the 22d of November, the Hon. Truman Smith having arrived in town, I began the taking of depositions before the commissioner, and counsel for Mrs. Wells were present, and informed many of the witnesses that they were not bound to appear before the commissioner or testify. Many of them, however, did testify, although not all. I recollect at the time this statement was made, on the morning of November 22d, by the counsel of Mrs. Wells, Dr. H. Allen Grant had just come into the room, and that he remarked, in reply, that he should leave, if that was the case. He did leave, and, although he was summoned, and received the witness fee, and was sent for several times, he would not appear or testify. I was much delayed and hindered in taking testimony, waiting to accommodate the witnesses and the counsel for Mrs. Wells.

Between the 22d of November and the 10th of December I was repeatedly informed by Dr. Ellsworth that they would give me the same opportunity to be present and examine their witnesses that I had given them.

On the 10th of December instant, about 12 o'clock, noon, I received a notice, which is hereto annexed, marked (B,) which is the only notice in any form I ever received from Mrs. Wells or her counsel, with regard to taking testimony.

On the afternoon of December 10th I was present at the office of H. K. W. Welch, at 2 $\frac{1}{4}$ o'clock, and remained till about 4 o'clock, and no witness had yet appeared. I was then informed by Dr. Ellsworth that it was doubtful (it was so late) whether any witness came. I then went to my office, and returned in about fifteen minutes to the office of Welch; and, on entering, I found H. L. Rider, Esq., (the person mentioned in the notice before whom depositions were to be taken, and who had not previously, while I was in, been present,) taking the testimony of Walter S. Williams; and H. K. W. Welch and Dr. Ellsworth were examining him. After they had closed, I cross-examined him. Williams's deposition was finished about 6 o'clock in the evening. Being under a previous engagement to attend the trial of a cause out of town the next day, (Saturday,) I suggested it to the counsel for Mrs. Wells, and was informed by Mr. Welch that he was desirous of going to Boston soon; and thereupon we agreed that he should go next day, (Saturday, the 11th December,) and that no depositions should be taken on either side on Saturday, the 11th, nor on Monday, the 13th December, until the return of both myself and Mr. Welch. I returned on Saturday evening, but took no depositions until after the return of Mr. Welch. On Monday morning I went to the office of H. K. W. Welch to see whether he had returned, and found he had not. After the arrival of the train from Boston, about noon, I went again, and found he had not yet returned. About 3 o'clock, p. m., thinking Welch might have stopped at Springfield, and come from there on a way train, I again went to his office to see if he had returned; and if so, to notify him to cross-examine Dr. Riggs, whose deposition was unfinished before Commissioner Smith that evening. I learned from his brother, at his office, that he had not arrived. At this time, on entering Welch's office, I found H. L. Rider, Dr. Ellsworth, E. W. Parsons, and a young man I subsequently learned was Franklin V. Slocum. H. L. Rider and Dr. Ellsworth were engaged in taking the deposition of E. W. Parsons. I asked them why they were taking testimony in violation of the agreement that had been made. Dr. Ellsworth said he was not a lawyer, and did not consider he was bound by any such agreement. While Dr. Ellsworth was replying to me, Rider and the witness left the room. Dr. Ellsworth and myself continued some conversation about the unfair course he was taking, and in about ten minutes I left the room, and went directly to the office of H. L. Rider, which is in the same building and on the same floor with that of Welch, and Dr. Ellsworth immediately followed me into Rider's office. When I got in there, I found Rider and F. V. Slocum, who had just signed and made oath to a deposition which, I understand, had been partly taken on Saturday before. I asked of Rider, the magistrate, the privilege, as the witness was yet present, of cross-examining him and securing his deposition. Rider

said he would not object, if Dr. Ellsworth did not. Dr. Ellsworth said he did object, and I was not permitted to see his deposition or examine him. I then asked the magistrate if he had been taking depositions on Saturday. He replied that he had. I asked at whose suggestion, and he said at Dr. Ellsworth's. I then again spoke of the agreement, and the unfair course they were taking. Rider said he knew nothing of the agreement, and should certify that I was notified, and not present. I told him that would be wrong.

I subsequently learned that Rider and Ellsworth were taking depositions all day on Saturday.

I remained at Rider's office for a half hour or more. I asked the magistrate (Rider) to see the depositions they had taken. Dr. Ellsworth said to Rider "do not show them;" and, turning to me, said "you cannot see them." I then asked the names of the persons they had examined. Dr. Ellsworth said they should not give them to me. I then told Dr. Ellsworth that I had only made these requests on the ground of his promise to me, and that they were pursuing a very unfair course; and that if the testimony they were getting was the truth, I did not see how he could object to my cross-examining the witnesses.

I then asked both Rider and Ellsworth if they were going to take any other depositions on that day, (Monday.) Dr. Ellsworth said they probably should. I said to him that then I wish to be present, and cross-examine them, that no erroneous impression may be made by their testimony; that all I sought was the exact truth in the matter, which, if arrived at, I had no reason to fear for the just rights of Dr. Morton; and that, as I was there, would wait till their witnesses came in. Dr. Ellsworth replied that I could not be permitted to examine their witnesses, and said he would not examine any more there that day, and immediately left the office. While he was going out I requested him not to stop the witnesses, but let them come and be examined there—fairly. Dr. Ellsworth made an indistinct reply, which I cannot state, and passed on; and in a few minutes no witness came in, and I left. On the next day, (Tuesday,) in the morning, I went to the office of Welch to see if they were taking depositions there, and found they were not. Soon after entering the room Dr. Ellsworth appeared at the door, and, seeing me, withdrew. I passed immediately to the door to speak to him, and as I opened the door I heard the door of Rider's office, which is in the same hall, as I supposed, close to. I passed immediately to the door, (seeing Dr. Ellsworth nowhere, and knowing he could not get down the stairs,) and rapped. The key was on the inside, and the door was locked, and they did not let me in. I went to my office, and returned in about fifteen or twenty minutes, and found Rider's office not locked, and went in. Found no person there but Rider, the magistrate, and the key

on the inside of the door. I asked him if Dr. Ellsworth had been there. He said yes. I asked him if they had been taking testimony there that morning. He said they had. I asked him why they locked me out. He said because Dr. Ellsworth directed it. I then asked him again to inform me what depositions they had taken, and to let me see them. He said Dr. Ellsworth had requested him not to tell me or show me the depositions.

Accordingly Rider refused to show them or tell me who the witnesses were. I asked if he was going to take any more testimony that day, (Tuesday.) He said he supposed so. I told him I should be in my office all day, and wished him to let me know when he took any depositions. He said Dr. Ellsworth would not agree to that, if he would, he would send me word. The entrance to my office is about twenty or thirty feet from the office of Rider & Welch. I received no notice from him, and was not permitted to be present after.

Finding that they were determined that I should not be present or cross-examine any of their witnesses, I undertook to ascertain who they were examining, and informed Dr. Ellsworth that I should ascertain who they were, if I could, and see what they knew in relation to the matter. Dr. Ellsworth said I might, if I could, find who they were, but he thought I would have some trouble. This, I think, was on Wednesday, the 15th December. After this the witnesses were taken privately and examined in different places in the city, as I understand and have since learned; and Rider and Ellsworth and Welch went to the residence of some of the witnesses, and took their testimony, and, as I have reason to believe, so that I should not learn who they were. They have utterly refused me the right to be present and examine any of their witnesses, except the first, on the 10th of December, W. S. Williams.

There were several witnesses that I desired to take their testimony, particularly N. M. Waterman, E. E. Crofoot, Dentist, and S. R. Slocum, who they refused me the right to cross-examine; but who I did not summon, because, calling on them to see when I should summon to suit their business convenience, they informed me that it was of no use to summon them, as they understood I could not compel their attendance, and that they should not appear, if I summoned them, or testify; and therefore I did not summon them.

And further deponent saith not.

HORACE CORNWALL.

DISTRICT OF CONNECTICUT, }
 County of Hartford, } ss.

HARTFORD, *December 27, 1852.*

There personally appeared Horace Cornwall and made solemn oath to the truth of the foregoing affidavit, by him subscribed, before me.

ERASTUS SMITH,
*Commissioner United States Circuit
 Court for District of Connecticut.*

(B.)

To H. CORNWALL, Esq., Counsel for W. T. G. Morton :

Please take notice that depositions of David Clark and others, concerning discovery of anæsthetic agents, will be taken at the office of H. K. W. Welch, before H. L. Rider, Esq., or other competent authority, on this 10th day of December, A. D. 1852, at 2 o'clock, p. m.

H. K. W. WELCH,
Counsel for Mrs. Dr. Wells.

To any indifferent

The above is a true copy of original notice.

Attest :

A. H. WELCH,
An indifferent person.

(A.)

UNITED STATES OF AMERICA, }
 District of Connecticut. }

HARTFORD, *November 19, 1852.*

To ELIZABETH WELLS and CHARLES WELLS :

Please to take notice that the depositions of William H. Ellsworth, Isaac Toucey, Thomas H. Seymour, Joseph Trumbull, Thomas S. Williams, Ebenezer Flower, L. B. Beresford, Benjamin Rogers, George Sumner, John S. Butler, Archibald

Hon. Isaac
 Toucey, author
 of Wells's
 pamphlet.

Welch, George Brinley, James Dixon, Pinckney W. Ellsworth, John M. Riggs, F. C. Goodrich, George B. Hawley, C. A. Taft, H. Allen Grant, Gordon W. Russell, E. K. Hunt, David Crary, John Schru, David E. Robinson, Barzille Hudson, John W. Bull, James B. Sherrus, P. F. Robbins, James Bolter, Perry Smith, Charles Benton, Samuel Rockwell, Miles F. Tuttle, Thoms Steel, Isaac A. Brayane, Noah Wheaton, Newton Case, Benoni A. Shepard, Howell R. Hills, Charles D. Wyman, E. B. Kellogg, Philo S. Newton, William S. White, Peter D. Stillman, Thomas Roberts, and others, will be taken before me on the 22d day of November, 1852, at my office, in the city of Hartford, within the said District of Connecticut, at 10 o'clock in the forenoon of that day, and by adjournment after, if necessary, to such times as shall be thought proper, to be read in the hearing and trial on the memorial of Wm. T. G. Morton, and remonstrance against and memorial of Elizabeth W. and Charles Wells, pending before the Congress of the United States. At which time and place aforesaid you are hereby notified to be present and put interrogations, if you shall think fit.

ERASTUS SMITH,
*Commissioner of United States Circuit
 Court for the District of Connecticut.*

STATE OF CONNECTICUT, }
 Town and County of Hartford. }

November 20, 1852.

Then and there I made service of this notice by leaving a true and attested copy of the same in the hands of the within named Elizabeth W. Wells, and a like true and attested copy at the usual place of abode of the said Charles Wells.

CHESTER ADAMS,
U. S. Deputy Marshal.

Fees, \$1.

Publication by C. Q. Colton, the person who gave the exhibition of "laughing gas," at which Wells conceived his idea.

THE CHLOROFORM DISCOVERY.

The Hartford Times publishes the following letter, which will be read with interest, as it relates to a topic of much discussion in some quarters :

NEW YORK, March 27th.

I notice a statement going the rounds of the press, copied from your paper, intended to show that Dr. Wells, and not Dr. Morton, was the rightful discoverer of the Chloroform. As I happen to know something about this matter, it is but justice to the memory of a worthy man (for I esteem him such, notwithstanding his unfortunate end,) and to his widow, that I should make it public. I believe I can prove to the satisfaction of any candid man, that Dr. Wells was the first discoverer, and the first to use an agent for relieving pain in surgical operations. By reference to the files of your paper, you will find that sometime in the summer or fall of 1844, I was in your city, giving lectures upon chemistry, &c.—that among other experiments, I made and administered the nitrous oxyd gas. On several of these occasions, Dr. Wells, with others, inhaled it. One day Dr. Wells came into my room, and asked me if I did not think that the effect of inhaling the gas would be such upon the nerves as to relieve the sense of pain in surgical operations. I replied that I could not tell—I had given it no thought. He expressed the belief that it would; and said he would like to try it upon himself the next time I made the gas. Accordingly the next day I carried a bag of the gas to the doctor's office. A neighboring dentist (Dr. Riggs) was present. Dr. Wells sat down in his large chair, and breathed the gas till consciousness was nearly gone; when he threw back his head and opened his mouth, and the dentist who was present extracted a large double tooth. This was effected without the slightest sign of pain; and Dr. Wells said he experienced none—"not more than the prick of a pin" were his words—when the operation was over. Dr. Wells expressed the greatest delight at the discovery. At his request, I taught him how to make the gas. Soon after this I left Hartford, and supposed I should hear no more of Dr. Wells's discovery; but in the course of a few weeks, I saw a paragraph in the papers, that *Dr. Wells was in Boston, administering the nitrous oxyd, and extracting teeth under its influence without pain!* I was at once reminded of the origin of the discovery.

See testimony of Cooley, and note the suppression of the facts leading to Wells's experiment.

Why, if it had been as alleged?

Nobody else ever saw such a paragraph; and the fact is known that he failed in the only experiment he made there.

Who else ever
saw it going the
rounds?

The effect of the nitrous oxyd upon the nerves is precisely the same as that of ether, letheon, or chloroform—except that the latter is a little more lasting in its operation, and can be administered with less difficulty. One acts upon the nerves directly, while the other acts on the blood, and through the blood upon the nerves. Both are chemical agents which suspend the action of the nerves during their operation. At the time Dr. Wells tried the experiment in Hartford, and at the time I saw the above-mentioned paragraph going the rounds of the papers, not a word had been said about letheon or Dr. Morton. It can be shown, I presume, by the Boston journals at what period Dr. Morton made his first experiments; and your journal and the Courant will show at what time I was in Hartford, and when Dr. Wells made the discovery. I do not doubt that Dr. Wells, being of so frank and open nature, communicated his idea to Dr. Morton and Dr. Jackson, and one of them probably suggested an improvement upon the nitrous oxyd—another agent which would produce the same effect, and be a little more lasting in its operation.

Under this state of facts, it appears to me that the credit of this discovery belongs exclusively to Dr. Wells. The idea originated with him, and the first successful experiments were tried by him. The day and date of all the facts I have stated can be fairly established.

Should you think advisable to make this communication public, you are at liberty to do so.

Respectfully yours,
G. Q. COLTON.

The following is introduced to show, by the statement of Dr. Ellsworth, on next page, that after Wells's failure at Boston, "no one seemed willing to lend him a helping hand, he ceased making any further personal efforts."

The discoverer of the effects of sulphuric ether.

[Communicated for the Boston Medical and Surgical Journal.]

We find, by an advertisement in one of the papers, that Drs. C. T. Jackson and W. T. G. Morton have made an important invention which has been patented. In justice to a fellow-townsmen, I will give its true history. The first announcement publicly made was by myself, more than a year since, in an article written for the purpose of establishing the doctrine that in disease the vital power is diminished, and suggested that in all probability pain was but a peculiar depressed state of the sensor nerves, and in proof stated that stimulants acting upon this system, and having a certain relation to it, would relieve or prevent suffering; and that the dentists of Hartford were in the habit of administering nitrous oxyd gas, which enabled them to extract teeth without the

consciousness of the patient. The original discoverer of this was Horace Wells, dentist in this city, and he tried the first experiment upon himself. After the idea suggested itself to him, he debated for some time which to use, the gas or ether, but preferred the former as he thought it less liable to injure the system. Being now satisfied of its powers, he went to Boston for the sole purpose of introducing it to the faculty. He presented it to Dr. Warren, who laid it before his class, but the experiment first attempted partially failing, and no one seeming willing to lend him an helping hand, he ceased making any further personal efforts. He especially made known his discovery to Drs. Jackson and Morton, neither of whom had any idea of it until this moment, and must allow Dr. Wells the whole merit of the thing up to this point. We see by the Journal that Drs. J. and M. call their invention a peculiar compound. I was fully satisfied that sulphuric ether was *the* article, as it was known to be among the ingredients, and being there, nothing else was wanting to produce the desired effect. The claim, as published, sets the matter at rest; ether, and ether alone, is used, and the world will easily judge how much right Drs. Jackson and Morton have to patent it. Had they been the first to discover the fact that any gas would produce exemption from pain, and had made it known, they would have deserved commendation. They have not done this, nor justice to the true discoverer. Is there any merit in using ether in place of nitrous oxyd gas? Certainly not, for the properties of the two things are so alike in this respect, that one is constantly used for the other, and for months I supposed our dentists were using both; and the idea of allowing any man a patent for the use of the one after the effects of the other were known, is preposterous. Dr. Wells's experiments were numerous and satisfactory. One fact discovered, is extremely interesting. It is that, however wild and ungovernable a person may be when taking the gas, simply for experiment, he becomes perfectly tranquil when it is inhaled before an operation: that the mind being prepared, seems to keep control over the body, indisposing to any effort.

Proof of failure and abandonment by Wells by his principal witness.

Unfortunately it is too true, that mystery, as of a nostrum, is frequently required to induce people, and sometimes the profession, to notice an improvement, and thus far perhaps thanks are due Dr. Morton for compelling attention; yet we must give Dr. Wells the credit he justly deserves of making the discovery, spending time and money in its investigation, and then in nobly presenting it to the world. It is to be hoped every other gas and substance capable of exciting the nervous system may be experimented upon, but we hope no one will think of patenting any if discovered to be similar in its operation.

P. W. ELLSWORTH.

HARTFORD, Dec. 9, 1846.

Evidence that the object of Wells, in visiting Paris, was to speculate in paintings.

HARTFORD, December 10, 1852.

DEAR SIR: In compliance with your request I make this statement of what I know of Dr. Wells' going to Paris in 1846. The last of November, 1846, a Mr. Eddy had a sale of pictures at Hartford, in Union hall. At the hall I had a conversation with Dr. Wells about the business; Wells said the pictures could be got up cheap, and money made by the operation; and, after, at my store, said he knew how to get them up, and was going into it. I had some conversation with him about going into it myself, and consulted you, as you will recollect, about it at the time, and concluded not to do so. Wells very soon left for Paris, and returned in the spring. He then came into my store, and told the arrangements he had made in regard to his pictures, by employing young artists very cheap, and had also an agent there to pay for them as they were finished and brought in; and after getting a lot together to ship them to New York. I recollect he spoke of Dr. Brewster, and said he offered to give him an interest in his business if he would remain in Paris. He also said something about the gas discovery, and the claim he made to it, and other things I do not recollect about.

Very respectfully,

E. W. WILLIAMS.

Mr. H. CORNWALL.

Letters to same purpose, by Dr. Brewster, of Paris.

PARIS, 21st March, 1847.

DEAR SIR: I recently received your favor of December 18, 1846, together with one of your apparatus for the inhalation of ether—for them both, as well as for the very kind manner in which you speak of myself, you will accept my very sincere thanks. You have, doubtless, ere this, made great improvements in your apparatus, inasmuch as we at home are a sort of go-a-head people, and can, in no case, be behind Europe in ingenuity. * * * *

Its discovery and use with you was first communicated to me in December last by a medical student from your quarter, upon whom I tried an unsuccessful experiment. After this it was a long time before I could induce another patient to try it. When I did, my experiment was perfectly successful. Since which I have used it in many cases with perfect success. The like result has generally attended its use in our hospitals, where it is in general use.

The discovery of performing operations in surgery without giving pain, is here regarded as the greatest ever made in medical science, except that of the vaccine matter.

I am often appealed to by persons here as to who is the true discoverer.

By the statement of some of the Boston dentists, one would think that Dr. Jackson deserves the credit. Then by a letter published in your Boston Medical and Surgical Journal, from Dr. Ellsworth, it seems that all the credit is due to Dr. Horace Wells. Dr. Marcy, of New York, in the Journal of Commerce, gives all the credit to Dr. Wells.

Dr. Wells has been here. I have freely conversed with him, and am disposed to believe him the true original discoverer who first practiced surgical operations (extractions of teeth) without pain. Dr. W's visit to Europe had no connection with this discovery, and it was only after I had seen the letters of Drs. Ellsworth and Marcy, that I prevailed upon him to present his claim to the Academy of Sciences, the Academy of Medicine and the Parisian Medical Society. If his statements are susceptible of proof, he will unquestionably be considered the discoverer. Then it remains to decide who is to receive the honors and rewards, as by the letter of Dr. Jackson, published in the Boston Daily Advertiser of 1st inst., you were the first to reduce to practice and promulgate the discovery. Many persons knew of and commented on the force of steam power, but it was Fulton who first successfully and publicly applied it. If Dr. Wells cannot prove that he did perform painful operations prior to yourself, then you must take the credit. I think that the letter of Dr. Jackson above referred to, most clearly takes from him all the honors. What did he do? He says you wished to borrow "an empty bag," and he told you that ether would produce insensibility. Why it required neither a physician nor a chemist to tell, as there is scarcely a school or community in our country, where the boys and girls have not inhaled ether to produce gaiety, and many are the known cases where they become insensible. But did Dr. J. ever perform any surgical operation on these in that state. * * * * *

BREWSTER.

Dr. W. T. G. MORTON.

PARIS, 24th March, 1847.

DEAR SIR: This day Mr. Poor gave me yours of the 27th February, (written by Dr. Warren,) as also your "third circular, Voice from Europe." I can scarcely add any thing to what I have already said, except to thank you for thinking of me.

That Dr. Jackson wishes to make you play "second fiddle;" that you were to be the *ass* on whom all the disgrace, if failures followed, and he was to be the man, if success attended the enterprise, both his and your letters, to my mind, fully prove. * * * * *

I am personally unknown to you, and to Dr. Jackson, accident threw me into the acquaintance, (yet I ought not to say accident, for I sought it.) The acquaintance of Mr. Wells and I was prompted to do this from a high sense of justice.

I had seen Drs. Ellsworth and Marcy's letter, and sent to Dr. or Mr. Wells, begging him to call on me. I then told him, "are you the true man." His answers, his manner, convinced me that he was. Now he has a very difficult task to establish his priority, for, in the Academie des Sciences, Dr. J. has one of the most influential members as his friend, (his former teacher, Eli de Beaumont, and you have no chance of success now.) * * * * *

BREWSTER.

Dr. W. T. G. MORTON.

Dr. Marcy's statement, No. 3.

I take pleasure in certifying, that more than two years since, at the request of Horace Wells, Esq., of this city, I visited his rooms for the purpose of witnessing the extraction of a tooth from a man, while under the influence of the nitrous oxyd gas. The idea was novel to me, and I took occasion to be present during the operation. The gas was administered by Mr. Wells, and the operation performed without any apparent suffering on the part of the individual operated upon. I afterwards questioned him in regard to his sensations during the extraction, and he assured me that he had not experienced the slightest degree of pain. At this time, the comparative merits of the gas and of rectified sulphuric ether vapor, were discussed, and I gave it as my opinion, that the nitrous oxyd gas was the safest, inasmuch as the after-effects of this gas are not so unpleasant as from the ether vapor. I also take this occasion to assert, from my positive knowledge, that the ether vapor was administered very soon after this period (and prior to 1845,) for the performance of a surgical operation.

In conclusion, I beg leave to offer it as my opinion, that the man who first discovered the fact that the inhalation of a gaseous substance would render the body insensible to pain, during surgical operations, should be entitled to all the credit or emolument which may accrue from the use of any substances of this nature. This is the *principle*—this is the *fact*—this is the *discovery*. The mere substitution of ether vapor, or any other article, for the gas, no more entitles one to the claim of a *discovery* than the substitution of coal for wood in generating steam, would entitle one to be called the discoverer of the powers of steam.

E. E. MARCY, M. D.

Hartford, March 27th, 1847.

STATE OF CONNECTICUT, Hartford County, ss :

City of Hartford, March 27, 1847.

Personally appeared E. E. Marcy, Physician and Surgeon, resident in this city, and made solemn oath to the truth of the foregoing affidavit by him subscribed before me.

Given under my hand and the seal of said city, the day and year aforesaid.

A. M. COLLINS, Mayor.

HARTFORD, *January 10, 1853.*

DEAR SIR: Since you announced, in Hartford, last October, that you would give a reward of \$100 to any one who would discover to you the *young man*, from whose head Dr. E. E. Marcy extracted a tumor, under the influence of ether, mentioned by him in an affidavit, I have made very great efforts to find the individual alluded to by him. In the first place, I offered a reward of \$50, then I offered \$75, and after I offered the same sum you did, \$100. By offering the smaller sums I thought I should as readily find the person, and save enough to pay me for my trouble.

I inquired of all the physicians and surgeons in this city, that were here as far back as 1844, and of two former students of Dr. Marcy, one of which was with him about the time he claims to have performed the operation, and also of the citizens of Hartford and adjoining towns. And I personally offered the reward, \$100, to Dr. P. W. Ellsworth, the agent of Mrs. Wells, if he would find the person and inform me who he was. I also offered a like sum to the counsel of Mrs. Wells, personally, and also to F. C. Goodrich and many others of the friends of Mrs. Wells, who I supposed would be likely to know who the person was. But with all my efforts I have not been able to find any such person as is mentioned by Dr. Marcy, or any one on whom he operated under the influence of ether, previous to the time you perfected your discovery in 1846, nor any person who could give me any information as to who it was.

Now, I feel entirely satisfied from the efforts that I have made, and caused to be made, that had any such operation been performed by Dr. Marcy, as he claims, I should have found the individual operated upon, or have got some information with regard to him.

I cannot believe, after this investigation, that any such person lives, or ever did live, or that any such operation was ever performed by Dr. Marcy, and I never can believe it till Dr. Marcy presents me the person operated upon.

And I am strengthened in this unbelief by other things than my own investigation. I mean the same investigation made by others, and also to Dr. Marcy's two affidavits, which I have seen, and his statements published in the *Journal of Commerce*, and not until his last affidavit, in 1849, do you find any statement from him that he ever performed a surgical operation under the influence of ether. Now for Dr. M. to say (as I understand he does) that he has forgotten the person, is nonsense to me, knowing Dr. M. as I do. He is not the man to have forgotten a fact so wonderful, nor the name of the person upon whom such operation was performed, for he thinks too

much of anything that will add to his own glory, or pecuniary reward.

I suppose you are under no obligation to pay me anything for my trouble in making this search, not having found the person for whom you offered the reward, but it has taken a good deal of valuable time, and if you feel like making me a small recompence, it would be gratefully received. But I charge you nothing of course.

Very respectfully,

HORACE CORNWALL.

DR. MORTON.

HARTFORD, CONN., *January 18, 1853.*

I hereby certify, that I have examined the printed Journals of the Senate and House of Representatives of the State of Connecticut, for the year 1847, and find the following record of proceedings in reference to the discovery attributed to Dr. Horace Wells, viz :

From the Senate Journal.

"TUESDAY, A. M., *June 22, 1847.*

"A Resolution awarding merit to Dr. Horace Wells, of Hartford, Connecticut, for his discovery of the use of nitrous oxyd gas, or vapor of ether, in extraordinary cases of difficult and dangerous surgical operations, was read, and on motion referred to a committee of one Senator, (for the purpose of correction,) and the Hon. Mr. Phelps was appointed said committee."

"TUESDAY, P. M., *June 22, 1847.*

"The committee, to whom was referred the resolution concerning the discovery by Dr. Wells, reported the following, which was passed, to wit :

"GENERAL ASSEMBLY, MAY SESSION, 1847.

"Whereas, it being understood by this Assembly, that Dr. Horace Wells, of Hartford, discovered in 1844, that nitrous oxyd gas, or the vapor of ether, inhaled by persons, causes insensibility to pain in amputation, or other surgical operations; which discovery has been most honorably noticed by various Medical Societies in London, and by the Academy of Medicine, and by the Parisian Medical Society in France, and has since been in use in England, France, and in this country; Therefore.

"Resolved by this Assembly, That the aforesaid discovery by Dr. Wells, of Hartford, Connecticut, of the use of nitrous oxyd gas, or vapor of ether, in surgical operations, is of great importance to the public, and entitles the inventor to the favorable consideration of his fellow-citizens, and to the high station of a public benefactor."

House of Representatives.

“WEDNESDAY AFTERNOON, *June 23, 1847.*

“Joint resolution awarding to Dr. Horace Wells, of Hartford, the discovery that nitrous oxyd gas, or the vapor of ether, inhaled by persons, causes insensibility to pain in amputations or other surgical operations, and declaring, in the opinion of this Assembly, that the aforesaid discovery is of great importance, and entitles the discoverer to the favorable consideration of his fellow-citizens, and to the high station of a public benefactor, came from the Senate passed—House concurred in the passage thereof.”

On the day following, to wit, Thursday, June 24, 1847, the General Assembly adjourned, *sine die.*

And I further certify, that in the printed reports of the proceedings of the House of Representatives, for the session above named, the remarks of Messrs. Chapman, of Hartford, Woodward, of Middletown, Cleveland, of Hampton, and Carter, of Farmington, are briefly set forth in favor of the passage of the Resolution referred to, and of Messrs. Hill, of Norwalk, and Russell, and Peck of New Haven, in opposition to the same.

R. A. EWING,
Executive Secretary, Ct.

IN SENATE OF THE UNITED STATES.

FEBRUARY 19, 1853—Ordered to be printed.

Mr. WALKER made the following

REPORT:

[To accompany an amendment intended to be proposed to the act (H. R. 336) "making appropriation for the support of the army for the year ending June 30, 1854."]

The select committee, to which were referred the various memorials in regard to the discovery of the means by which the human body is rendered uniformly and safely insensible to pain under surgical operations, has had the subject under consideration, and now report :

That in the opinion of the committee such a discovery has been made, and that the credit and honor of the discovery belong to one of the following persons, all citizens of the United States, to wit: William T. G. Morton, Horace Wells, deceased, or Charles T. Jackson; but to which of these persons in particular the discovery should be awarded, the committee is not unanimous, and consequently the committee is of opinion that this point should not be settled by Congress without a judicial inquiry.

But the committee has no hesitancy in saying, that to the man who has bestowed this boon upon mankind, when he shall be certainly made known, the highest honor and reward are due which it is compatible with the institutions of our country to bestow.

The means of safely producing insensibility to pain in surgical and kindred operations have been the great desideratum in the curative art from the earliest period of medical science, and have been zealously sought for during a period of more than a thousand years. At various periods, and in various ages, hope has been excited in the human breast that this great agent had been found; but all proved delusive, and hope as often died away, until the discovery now under consideration burst upon the world from our own country, and in our own day. Then, and not until then, was the time-cherished hope realized that the knife would lose its sting, and that blood might follow its edge without pain.

But for the committee to dilate upon the importance of this discovery were futile indeed. The father or mother who has seen a child, or the child who has a father or mother, upon the surgeon's table, writhing and shrieking from pain and agony—the husband who has seen his wife suffering, perhaps dying, un-

der the undurable pangs of parturition, the extirpation of a breast or cancer, or the amputation of a limb, while she appealed and implored for help and ease which he could not otherwise render—the commander who has seen his soldiers, and the soldier who has seen his companion, sink, nervously shocked to death from pain, in the absence of this alleviation—and the surgeon who is forced to torture, while, perhaps, he weeps—can all more redily feel the magnitude and blessing of this discovery than the committee can describe it. Indeed, while the heart of man shall remain human, or possess the power to pulsate in sympathy with human suffering, it would seem that none would deny it the meed of pre-eminence among the discoveries of any age.

Leaving, therefore, the importance of the discovery, as a matter conceded by all, the committee will proceed to the consideration of another inquiry, which is—has Congress the constitutional power to grant pecuniary reward for the use and benefit of the discovery, had and derived by the Government in its military and naval service, its hospitals, and asylums?

Were this an original question, or one presented for the first time, it would seem that very little reflection ought to satisfy the most jealous objector that such a power is possessed by Congress. Were it not so, the Government might become the veriest laggard in every species of progress; or, to escape that difficulty, must become the worst and only resistless pirate upon the rights, inventions, and discoveries of its citizens. For instance: an invention in mechanical, or a discovery in physical science is made. By its use, private individuals and governments, *having* the power to avail themselves of it, transmit a message in a minute, which would otherwise require a week; propel a ship to a given point in a week, which, without the availed discovery, would require a month; send their agents or soldiers to a point in a day, which could not be reached, formerly, in twenty; or print matter in an hour, which formerly required a day: while our Government, not possessing the rightful power to avail itself of the invention or discovery, must necessarily lag behind private individuals and all other Governments, whether in peace or war, and move on in the old and slothful paths; or it must do by piracy, or usurpation, what it is alleged it cannot do constitutionally—infringe the private rights of its citizens, and avail itself by *might* of that which it cannot obtain by the exercise of rightful power. But, before it can do even this, it must be first conceded that the Government can reach an unconstitutional but necessary end by means of a constitutional wrong. The bare proposition involves so plain a solicism, that serious consideration of it is precluded.

As an original and open question, then, the committee would be of opinion that Congress does possess the power to avail itself of the use of the discovery under consideration; or having had, and still having the use and benefit of it, can rightfully grant a reward for that use and benefit.

But the committee cannot view the question of power as an original or open one. The time is too long, and the instances are too numerous, in which the power has been exercised, to allow of its being so considered. A list of some of the cases in which the power in question has been exercised, will be found appended to this report; but the committee will here allude to a class of cases involving the power to the extreme limit—cases in which the Government has even stood forth to assist private individuals, with money, in their efforts to make and perfect their discoveries and inventions: such, for instance, as the cases of Professors Morse, Page, and Espy.

The committee being of opinion that this discovery is eminently meritorious, and its use by the Government of vast and incalculable value and benefit, have concluded to recommend to the favorable consideration of the Senate the accompanying provision, by way of amendment to the army appropriation bill.

[This proposition gives \$100,000 to the discoverer.]

Views of the Chairman on "An Examination of the Question of Anæsthesia."

While the question of anæsthesia, on the memorials of sundry persons, was under consideration by the Select Committee of the Senate, of which I was Chairman, a paper entitled "AN EXAMINATION OF THE QUESTION OF ANÆSTHESIA," prepared by the Hon. Truman Smith, a member of the Committee, and having thus a *quasi* official character, was printed and circulated among the members of the Senate and House of Representatives. And as, in my opinion, that paper presents a one-sided and partial view of the question; such as might be expected of an advocate of easy faith in his client's cause, and strong indignation against all that oppose it; and consequently comes to a conclusion widely different from that which a calm and impartial consideration of the whole case would warrant, I deem it an act of mere justice to the person who I believe has the right, to present also the opinion which I have formed upon the same points after a careful examination.

The writer of that paper gives the whole merit of the discovery of practical anæsthesia to the late Dr. Horace Wells, of Hartford, Connecticut, and he denounces, in no measured terms, as pirates and impostors both the other claimants to that distinguished honor. He is especially bitter and abusive of Dr. Morton, whose character is above all reproach, and whose claim to the contested prize is supported by very strong evidence, while he shows some little forbearance towards Dr. Jackson, who has failed in making out his claim. The strength of his denunciations against the respective parties, and the degree of villany which he imputes to them is in direct proportion to the strength of their proofs.

I feel no interest or wish in this matter, except that the truth may be arrived at, and right and justice done; and that I may discharge faithfully the duty which the Senate has imposed on me by the reference, by endeavoring to obtain it, and present it. And it is but fair to say, in the outset, that, after a careful examination of all the allegations and proofs to which I have had access, my mind is made up—my opinion formed on the question—and that I concur with the Board of Trustees of the Massachusetts Medical Hospital in the opinion expressed in their report of January 26th, 1848, and with the two committees of the House of Representatives of 1849 and 1852, that Dr. W. T. G. Morton first discovered and brought into general use a safe, certain, and efficient anæsthetic agent, applicable generally to all dentrical, surgical, and obstetrical cases, and that he is entitled to whatever honor and reward are due to the discovery, and the free and general use of it, by the army and navy of the United States, by the country, and by the civilized world.

Dr. Wells not the original conceiver of Anæsthesia.

He was, however, by no means the first that "*formed a distinct conception of anæsthesia.*" Nor was Dr. Horace Wells, or Dr. C. T. Jackson. If we trace the "*conception*" as far back through the lapse of ages as it is disclosed to us by history, we will find they were, each and all of them, among the last that entertained it. Nor was either of them the first that "*attained that end by means, good and satisfactory*" for a time, at least, to themselves and a circle of select friends who felt pride or interest in finding the means "*satisfactory.*" None, however, as far as we know, prior to Dr. Morton, attained it by "*means*" deemed "*good and satisfactory*" by the medical profession generally throughout the civilized world, and published to the world the discovery of means such as that profession generally would venture to receive and bring into use. But the world, for more than two thousand years past, has teemed with the discovery and use of various agents, clearly and indubitably possessed of anæsthetic qualities, used in some instances—many of them frequently and for a long time—with considerable reputation and success. None of them, however, prior to the introduction of the use of the vapor of sulphuric ether by Dr. Morton, were able to make its way or hold its place among an intelligent and scientific modern medical profession. A history of these anæsthetic agents, their qualities and use was not long since published by Dr. J. Y. Simpson, of Edinburg, to whose brief but elegant essay the committee of the House of Representatives who reported on this question in 1852 was largely indebted for the facts given in the historical introduction to their very able report—the following extract from which is fully to my present purpose :

Letheon Anodynes used by the Ancients.

"Intense pain is regarded by mankind, generally, as so serious an evil that it would have been strange indeed if efforts had not been early made to diminish this species of suffering. The use of the juice of the poppy, henbane, mandragora, and other narcotic preparations, to effect this object by their deadening influence, may be traced back till it disappears in the darkness of a highly remote antiquity. Intoxicating vapors were also employed, by way of inhalation, to produce the same effects as drugs of this nature introduced into the stomach. This appears from the account given by Herodotus, of the practice of the Scythians, several centuries before Christ, of using the vapor of hemp seed as a means of drunkenness. The known means of stupefaction were very early resorted to, in order to counteract pain produced by artificial causes. In executions, under the horrible form of crucifixion, soporific mixtures were administered to alleviate the pangs of the victim. The draught of vinegar and gall, or myrrh, offered to the Savior in his agony, was the ordinary tribute of human sympathy extorted from the bystander by the spectacle of intolerable anguish.

"That some letheon anodyne might be found to assuage the torment of surgical operations as they were anciently performed, cauterizing the cut surfaces, instead of tying the arteries, was not only a favorite notion, but it had been in some degree, however imperfect, reduced to practice. Pliny, the naturalist, who perished in the eruption of Vesuvius, which entombed the city of Herculaneum, in the year 79, bears distinct and decided testimony to this fact.

"It has a soporific power," says he in his description of the plant known as the mandragora or circeius, "It has a soporific power on the faculties of those who drink it. The ordinary potion is half a cup. It is drunk against serpents, and before cuttings and puncturings, lest they should be felt." (*Bibitur et contra serpentes, et ante sectiones, punctionesque, ne sentiantur.*)

When he comes to speak of the plant *eruca*, called by us the rocket, he informs us that its seeds, when drunk, infused in wine, by criminals about to undergo the lash, produce a certain callousness or induration of feeling, (*duaitiam quondam contra sensum induere.*)

Pliny also asserts that the stone *Memphitis*, powdered and applied in a liniment with vinegar, will stupefy parts to be cut or cauterized, "for it so paralyzes the part that it feels no pain; *nec sentit cruciatum.*"

Antiquity of Anæsthesia.

Dioscorides, a Greek physician of Cilicia, in Asia, who was born about the time of Pliny's death, and who wrote an extensive work on the materia medica, observes, in his chapter on mandragora—

1. "Some boil down the roots in wine to a third part, and preserve the juice thus procured, and give one cyathus of it in sleeplessness and severe pains, of whatever part; also, *to cause the insensibility*—to produce the anæsthesia (*poiein anaisthesian*) of those who are to be cut or cauterized."

2. "There is prepared, also, besides the decoction, a wine from the bark of the root, three minae being thrown into a cask of sweet wine, and of this three cyathi are given *to those who are to be cut or cauterized, as aforesaid*; for being thrown into a deep sleep, *they do not perceive pain.*"

3. Speaking of another variety of mandragora, called *morion*, he observes, "medical men use it also for those who are to be cut or cauterized."

Dioscorides also describes the stone Memphitis, mentioned by Pliny, and says that when it is powdered and applies to parts to be cut or cauterized, they are rendered, *without the slightest danger*, wholly insensible to pain. Matthiolus, the commentator on Dioscorides, confirms his statement of the virtues of mandragora, which is repeated by Dodoneus. "Wine in which the roots of mandragora has been steeped," says this later writer, "brings on sleep, and appeases all pains, so that it is given to those who are to be cut, sawed, or burned, in any parts of their body, that they may not perceive pain."

The expressions used by Apuleius, of Madaura, who flourished about a century after Pliny, are still more remarkable than those already quoted from the older authors. He says, when treating of mandragora, "If any one is to have a member mutilated, burned, or sawed, (*mutilandum, comburendum, vel serrandum,*) let him drink half an ounce with wine, and *let him sleep till the member is cut away, without any pain or sensation, (et tantum dormiet, quosque abscindatur membrum aliquo sine dolore et sensu.)*"

Anæsthetic agents used in China centuries ago.

It was not in Europe and in Western Asia alone that these early efforts to discover some letheon were made, and attended with partial success. On the opposite side of the continent, the Chinese, who have anticipated the Europeans in so many important inventions, as in gunpowder, the mariner's compass, printing, lithography, paper money, and the use of coal, seem to have been quite as far in advance of the occidental world in medical science. They understood, ages before they were introduced into Christendom, the use of substances containing iodine for the cure of the goitre, and employed spurred rye, ergot, to shorten dangerously prolonged labor in difficult accouchments. Among the therapeutic methods confirmed by the experience of thousands of years, the records of which they have preserved with religious veneration, the employment of an anæsthetic agent to paralyze the nervous sensibility before performing surgical operations, is distinctly set forth. Among a considerable number of Chinese works on the pharma-

copæia, medicine, and surgery in the National Library at Paris, is one entitled, *Kou-kin-i-tong*, or general collection of ancient and modern medicine, in fifty volumes quarto. Several hundred biographical notices of the most distinguished physicians in China are prefixed to this work. The following curious passages occur in the sketches of the biography of *Hoa-tho*, who flourished under the dynasty of *Wei*, between the years 220 and 230 of our era. "When he determined that it was necessary to employ acupuncture, he applied it in two or three places; and so with the *moxa*, if that was indicated by the nature of the affection to be treated. But if the disease resided in parts upon which the needle, *moxa*, or liquid medicaments could not operate, for example in the bones, or the marrow of the bones, in the stomach, or the intestines, *he gave* the patient a preparation of hemp, (in the Chinese language *mayo*,) and after a few moments he became as insensible as if he had been drunk or dead. Then, as the case required, he performed operations, incisions, or amputations, and removed the cause of the malady, then he brought together and secured the tissues, and applied liniments. After a certain number of days, the patient recovered, *without having experienced during the operation the slightest pain*. *Hoa-tho* has published, under the title of *Nei-tchao-thou*, anatomical plates, which exhibit the interior of the human body, which have come down to our times, and enjoy a great reputation."

It will be noticed that the agent employed by *Hoa-tho*, which he calls *ma-yo*, hemp medicine, and which is called in the annals of the latter *Hans*, *mafo-san*, or hemp essence powder, is the extract of the same plant mentioned by Herodotus, twenty-three centuries ago, *canuabis Indica*, the *haschisch* of the Arabs, which is now extensively cultivated in Hindostan, for the purpose of manufacturing the substance called *Bhang*, to produce a peculiar species of intoxication, at first seductive and delicious, but followed in its habitual use by terrible effects upon the constitution.

Almost a thousand years after the date of the unmistakeable phrases quoted from Apuleius, according to the testimony of William of Tyre, and other chronicles of the wars for the rescue of the holy sepulchre, and the fascinating narrative of *Marco Polo*, a state of anæsthesia was induced for very different purposes. It became an instrument in the hands of bold and crafty impostors to perpetrate and extend the most terrible fanaticism that the world has ever seen.

Inhalation of an Anodyne Vapor in the thirteenth century.

The employment of anæsthetic agents in surgical operations, was not forgotten or abandoned during the period when they were pressed into the appalling service just described. In the thirteenth century, anæsthesia was produced by inhalation of an anodyne vapor, in a mode oddly forestalling the practices

of the present day, which is thus described in the following passage of the surgical treatise of Theodoric, who died in 1298. It is the receipt for the "*spongia somnifera*," as it is called in the rubric:

"The preparation of a scent for performing surgical operations, according to Master Hugo. It is made thus: Take of opium and the juice of unripe mulberry, of hyoscyamus, of the juice of the hemlock, of the juice of the leaves of the mandragora, of the juice of the woody ivy, of the juice of the forest mulberry, of the seeds of lettuce, of the seed of the burdock, which has large and round apples, and of the water hemlock, each one ounce; mix the whole of these together in a brazen vessel, and then in it place a new sponge, and let the whole boil, and as long as the sun on the dog days, till it (the sponge) consumes it all, and let it be boiled away in it. As often as there is need of it, place this same sponge into warm water for one hour, and let it be applied to the nostrils till he who is to be operated on (*qui incidentus est*) has fallen asleep; and in this state let the operation be performed (*et sic fiat chirurgia*.) When this is finished, in order to rouse him, place another, dipped in vinegar, frequently to his nose, or let the juice of the roots of fenigreek be squirted into his nostrils. Presently he awakens."

Prophylactic agents used during the middle ages.

Guy de Chauliac and Brunus are the only authors on medicine and surgery, besides Theodoric, who, during this period, allude to prophylactic agents to avert pain. It may be presumed, therefore, that their employment was not generally very successful. Probably bad effects, such as congestion and asphyxia, and sometimes ending in death, followed their unskillful empiricism. J. Canappe, the physician of Francis I., in his work printed at Lyons in 1535, *Le Guidon pour les Barbiers et les Chirurgiens*, the Surgeon's and Barber's Guide, describes the method of Theodoric and his followers, as already given above, and adds: "*Les autres donnent opium à boire, et font mal, specialement s'il est jeune; et le aperçoivent, car ce est avec une grande bataille de vertu animale et naturelle. J'ai ouï qu'ilz encourent manie, et par consequent la mort.*"

Thus much is known to us of the efforts of the medical faculty in remote antiquity and during the middle ages, to destroy or mitigate pain in surgical operations—and they were attended with a certain degree of success, especially the "*spongia somnifera*" described by Theodoric, the use of which was again revived in our own times.

French experiments in 1832, exactly parallel to those of Dr. Wells' in 1844.

"A French physician, residing in the neighborhood of Toulouse, M. Dauriol, asserts that, in the year 1832, he employed a

method analogous to that of Theodoric, and specifies five cases in which he succeeded in performing painless operations."

The success of the modern revival of this ancient anæsthetic agent, appears to have been about equal to that of Dr. Wells with the nitrous oxyd. M. Dauriol says he applied it successfully and specifies five cases in which he performed operations without pain, and it may be reasonably inferred, *without previous mental preparation*. Dr. Wells performed an operation, that of extracting a tooth or teeth, on "*ten or fifteen*" persons as he says, but the first and only exhibition he made of it out of his own town was a failure, and brought him and his nostrum into ridicule. He certainly did no more in 1844 to prove the utility of *nitrous oxyd* as an anæsthetic agent, than Dauroil had done for the *spongia somnifera* in 1832. Nor did he do more to advance the general idea of anæsthesia, or to commend it to the favorable notice of the medical faculty. Nor did M. Dauriol stand alone in this department of medical science :

English use of Gases to produce insensibility in 1828.

"September 23, 1828, M. Girardin read a letter before the Academy of Medicine, addressed to his Majesty Charles X., by Mr. Hickman, a surgeon of London, in which this surgeon announces a means of performing the most delicate and most dangerous operations without producing pain in the individuals submitted to them. This proceeding consists in suspending insensibility by the methodical introduction of certain gases into the lungs. Mr. Hickman had tested his proceedings by repeated experiments on animals."

But neither of their discoveries met with any considerable success. Neither was acknowledged or adopted by the medical profession, though both had formed "*a distinct conception of anæsthesia*," and both of them "attained that end" by means "good and satisfactory" to themselves, though not to the medical profession.

Other anæsthetic agents have been tried, with some success, but never brought into general use, nor obtained the approval of an enlightened medical faculty.

"Haller, Deneux, and Blandin, report cases of operations performed upon patients under the influence of alcholic intoxication, in obstetric and other cases, without pain; and Richerand has suggested that this expedient should be employed in the management of dislocations difficult to be reduced. For obvious reasons it has not been adopted by the profession. Mesmerism, also, has been the subject of grave discussions, and of some extraordinary statements, in this connection; but, whatever may be thought of the individual cases certified by witnesses, it is not too much to say that it is not likely ever to become a remedy of general application."

The last named agent, MESMERISM, consists wholly, perhaps, in "mental preparation," which alone holds a prominent place in Dr. Wells's experiments.

Dr. Wells did not "discover" Anæsthesia.

I will now proceed to consider more particularly the subject of the alledged discovery of Dr. Wells. And whether he did, in fact, discover any thing not already known, or bring into general use, among the medical profession, a quality or a substance already known, but which had been theretofore neglected.

That he did not first discover "anæsthesia" as a condition of the human frame, or that various substances, solid, liquid, and gaseous, would produce it, is manifest from what I have already shown. The fact has been well understood from the first dawn of medical science, through all ages and at all times, down to the present day. Nor has he discovered that the property of producing anæsthesia exists in a substance not heretofore known to possess it, for, *that* property of the nitrous oxyd has been long well known. And the use to which Dr. Wells applied it, was anticipated by Sir Humphrey Davy more than half a century ago. In his researches on nitrous oxyd, p. 276, he says :

Sir Humphrey Davy described the properties of Nitrous Oxyd fifty years since.

"In one instance, when I had headache from indigestion, it was immediately removed by the effects of a large dose of gas ; though it afterwards returned, but with much less violence. In a second instance, a slighter degree of headache was wholly removed by two doses of gas.

"The power of the immediate operation of the gas in *removing intense physical pain, I had a very good opportunity of ascertaining.*

"In cutting one of the unlucky teeth called dentes sapientiæ, I experienced an extensive inflammation of the gum, accompanied with great pain, which equally destroyed the power of repose, and of consistent action.

"On the day when the inflammation was most troublesome, I breathed three large doses of nitrous oxyd. The pain always diminished after the first four or five inspirations ; the thrilling came on as usual, and uneasiness was for a few minutes swallowed up in pleasure. As the former state of mind however returned, the state of organ returned with it ; and I once imagined that the pain was more severe after the experiment than before."

And on page 32 :

"As *nitrous oxyd*, in its extensive operations, appears capable of destroying physical pain, it may probably be used with advantage during surgical operations in which no great effusion of blood takes place."

So that Dr. Wells could claim no originality in the discovery or conception of anæsthesia, or of the fact that nitrous oxyd, as well as many other substances, would produce it.

And I have also as clearly shown that he was not the first to apply anæsthesia to destroy pain in surgical operations. The practice was familiar with ancients. The northern and eastern nations, as well as the Greeks and Romans, understood and practised it, and the preparation of the anæsthetic agent was a familiar head in the dispensatories of the middle ages, and the practice was not entirely abandoned in modern times. Mr. Girardin recommended it in 1828. M. Dauriol used it in surgical operations in 1832.

So, also, did Hallena, Denwin, and Blandia; in short, the preceding pages show clearly that Dr. Wells had no claims as the originator of aesthesia, or as having been (to use the words of the writer of the "Examination") *the first being upon whom an anæsthetic operation was performed.*

The next proposition we shall discuss is, that—

The experiments of Dr. Wells did not advance the discovery.

The testimony showing the truth of this assertion may be best considered by distributing it according to its applicability to the following cardinal points, viz:

1st. That of the anæsthetic agents, known or unknown to the scientific world, he selected one which is *certain, safe, and effectual.*

2d. *That he so applied it as to satisfy the medical profession of its utility.*

3d. *And that he so published it as to bring it into general use.*

Now, I appeal to all candid and impartial men, I submit to an intelligent public, whether in the then state of medical science as I have shown it, these three conditions were not necessary to constitute a just title to the honor and reward which is here claimed.

I will now proceed to an examination of the evidence, and endeavor to ascertain, therefrom, whether *any* or *all* of these conditions were fulfilled by Dr. Wells.

Total absence of any publication until Dr. Morton's success was known.

And, in the first place, it is worthy of remark that, in the case of Dr. Wells, we have not one stroke of pen or pencil by him, either in a private memorandum, friendly letter, or published essay, in which he claims to have had any knowledge, or to have made any use of *sulphuric ether*, prior to his letter of December 7th, 1846, at which date America and Europe rang with the fame of the then new discovery, of its perfect anæsthetic qualities. Nor does he in that letter claim to have done any thing more than to have thought of it, spoken of it to Dr. Marcy, and, by

his advice, to have rejected it. But in his letter published in *Galignani's Messenger*, of February 7, 1847, he says: "Since this discovery was made, I have administered the nitrous oxyd and sulphuric ether to about fifty patients," leaving it to be inferred by a cursory reader, but by no means saying that he tried sulphuric ether before it was brought into public use by Dr. Morton. This equivocal statement of Dr. Wells, if it be understood to extend to the use of sulphuric ether prior to September 30, 1846, is supported only by the testimony of John G. Wells, taken within the present winter. He says:

"On this occasion sulphuric ether was administered by Dr. Wells. I am quite sure it was early in 1845, a long time anterior to the period when Dr. Morton, of Boston, first announced his discovery. The ether was unpleasant in its effects, though the tooth was extracted without pain. I therefore advised my friends not to use it, but rather the exhilarating gas."

Claim in 1853 that Dr. Wells had used Ether, refuted by Dr. Wells himself in 1847.

But this testimony is subject to several difficulties—1st. Dr. Wells, in publishing his discovery December 7th, 1846, does not pretend to have ever administered sulphuric ether.

2d. This same witness testified in March, 1847, and does not pretend, in his then testimony, that sulphuric ether was ever administered to him. His deposition is as follows:

HARTFORD, *March* 26, 1847.

I hereby testify that, more than two years prior to this date, on being informed that Horace Wells, dentist, of this city, had made a valuable discovery, by which means he could extract teeth without pain to the patient, which consisted in the use of stimulating gas, or vapor, I inhaled the exhilarating gas, and under its influence, had six extracted without the least pain. I would further state, that for more than eighteen months from the time I first submitted to this operation by the application of gas, I heard no other name mentioned as the discoverer, except that of the above-named Horace Wells.

J. GAYLORD WELLS,
184½ Main street.

3d. And Dr. Wells, on his return from Europe in 1847, distinctly stated to Professor Hayward that he never had operated on a subject under the influence of sulphuric ether. Dr. Hayward said, in answer to to interrogatory:

16th. Did you have a conversation with Dr. Horace Wells, of Hartford, on the subject of anæsthesia? If yea, when, and who was present? Please give the whole conversation.

Ans. He called at my house after his return from France; after we had begun to use the ether as an anæsthetic. There was no one present but Dr. Wells and myself. It was in my

study. I then asked him if he had ever used sulphuric ether by inhalation, so as to render any one insensible to pain, and performed any surgical operation on the individual while in that state. His answer was that he had not.

Again: Dr. Wells in his letter of February 7, 1847, to *Galig-nani's Messenger*, says:

"The less atmospheric air admitted into the lungs with, any gas or vapor, the better; the more satisfactory will be the result of the operation."

From this it is evident he knew nothing of the properties or use of sulphuric ether. It will not support respiration, and the patient who should breathe it without a mixture of atmospheric air, would be instantly suffocated to death. Dr. Wells could never have used it, for if he had, he would have killed his patient.

An assertion to the effect that he had so used it prior to his letter of December 7, 1846, would have been entitled to no credit in the face of that letter, but he does not make it, and it would perhaps be doing him injustice to suppose that, by his vague and indefinite language, he intended it should be so understood. It is, however, sufficient for the purpose of this inquiry that there is neither assertion or proof that he even tried an experiment with *sulphuric ether* prior to Dr. Morton's discovery, September 30th, 1846; that he thought of it, and spoke of it, if it be conceded that he did so, prior to that time, is a matter of no importance. Nor if he in fact made experiments with sulphuric ether, does it amount to any thing more than this: that he *discredited it instead of approving it, as an anæsthetic agent*. He does not intimate in either of his letters that he communicated his conception as to sulphuric ether, if any such he then had to either Dr. Morton or Dr. Jackson. Dr. Wells, therefore, is entitled to nothing so far as merit depends upon discovering and making public the use of sulphuric ether as a safe, certain, and effectual anæsthetic agent. His claims are therefore necessarily limited to his development of the anæsthetic properties of nitrous oxyd, and to the use which he made of that agent and the introduction into public use while he gave it.

Dr. Wells's experiments confined to Nitrous Oxyd.

On this particular agent he wrote and published nothing prior to December 7, 1846, when there had been made known to and received by the world at large an acknowledged safe, certain, and efficient anæsthetic agent—sulphuric ether—then he wrote and set up his claim; I give it at length in his own words.

From the Hartford Courant.

HARTFORD, December 7, 1846.

MR. EDITOR: You are aware that there has been much said of late respecting a gas, which, when inhaled, so paralyzes the

system as to render it insensible to pain. The Massachusetts General Hospital have adopted its use, and amputations are now being performed without pain. Surgeons generally, throughout the country, are anxiously waiting to know what it is, that they may make a trial of it, and many have already done so with uniform success. As Drs. Charles T. Jackson and W. T. G. Morton, of Boston, claim to be the originators of this invaluable discovery, I will give a short history of its introduction, that the public may decide to whom belongs the honor.

While reasoning from analogy, I was led to believe that the inhaling of any exhilarating gas, sufficient to cause a great nervous excitement, would so paralyze the system as to render it insensible to pain, or nearly so, for it is well known that when an individual is very much excited by passion, he scarcely feels the severe wound which may at the time be inflicted, and the individual who is said to be "dead drunk," may receive severe blows, apparently without the least pain, and when in this state is much more tenacious of life than when in the natural state. I accordingly resolved to try the experiment of inhaling an exhilarating gas myself, for the purpose of having a tooth extracted. I then obtained some nitrous oxyd gas, and requested Dr. J. M. Riggs to perform the operation, at the moment when I should give the signal, resolving to have the tooth extracted before losing all consciousness. This experiment proved to be perfectly successful—it was attended with no pain whatever. I then performed the same operation on twelve or fifteen others, with the same results.

I was so much elated with the discovery, that I started immediately for Boston, resolving to give it into the hands of proper persons, without expecting to derive any pecuniary benefit therefrom. I called on Drs. Warren and Haywood, and made known to them the result of the experiments I had made. They appeared to be interested in the matter, and treated me with much kindness and attention. I was invited by Dr. Warren to address the medical class upon the subject at the close of his lecture.

I accordingly embraced the opportunity, and took occasion to remark that the same result would be produced, let the nervous system be excited sufficiently by any means whatever; that I had made use of nitrous oxyd gas, or protoxyd of nitrogen, as being the most harmless. I was then invited to administer it to one of the patients, who was expecting to have a limb amputated.

I remained some two or three days in Boston for this purpose, but the patient decided not to have the operation performed at that time. It was then proposed that I should administer it to an individual for the purpose of extracting a tooth. Accordingly, a large number of students, with several physicians, met to see the operation performed—one of their number to be a patient. Unfortunately for the experiment, the gas bag was by mistake

withdrawn much too soon, and he was but partially under its influence when the tooth was extracted. He testified that he experienced some pain, but not as much as usually attends the operation. As there was no other patient present, that the experiment might be repeated, and as several expressed their opinion that it was a humbug affair, (which, in fact, was all the thanks I got for this gratuitous service,) I accordingly left the next morning for home. While in Boston I conversed with Drs. Charles T. Jackson and W. T. G. Morton upon the subject, both of whom admitted it to be entirely new to them. Dr. Jackson expressed much surprise that severe operations could be performed without pain, and these are the individuals who claimed to be the inventors.

When I commenced giving the gas, I noticed one very remarkable circumstance attending it, which was, that those who sat down resolving to have an operation performed under its influence, had no disposition to exert the muscular system in the least, but would remain quiet as if partially asleep. Whereas, if the same individuals were to inhale the gas under any other circumstances, it would seem impossible to restrain them from over exertion.

I would here remark, that when I was deciding what exhilarating agent to use for this purpose, it immediately occurred to me that it would be best to use nitrous oxyd gas, or sulphuric ether. I advised with Dr. Marcy, of this city, and by his advice I continued to use the former, as being the least likely to do injury, although it was attended with more trouble in its preparation. If Drs. Jackson and Morton claim that they are something else, I reply that it is the same in principle if not in name, and they cannot use anything which will produce more satisfactory results; and I made these results known to both of these individuals more than a year since.

After making the above statement of facts, I leave it for the public to decide to whom belongs the honor of the discovery.

Yours, truly,
HORACE WELLS, *Surgeon Dentist.*

Dr. Wells's first object in this paper was to present his own claims; they were fresh and recent, and his mind was in a fit condition to appreciate them fully; it is reasonable, therefore, to suppose that he presented them in all their length and breadth—and in it he does not pretend that he had ever used or tried sulphuric ether as an anæsthetic agent. It is safe, therefore, to conclude that he never had. His second object, connected with the first, was to depreciate the claims of Drs. Morton and Jackson, whom he then considered as his rivals. We see by his last paragraph, that he was aware that Dr. Morton was using sulphuric ether as an anæsthetic agent, but he does not pretend that it had ever been used by any other person for the like purpose. It is

safe, therefore, to conclude that it had not, within his knowledge. He says that he suggested it to Dr. Marcy, who advised against its use, so he continued the use of nitrous oxyd. This first paper is something nearer the time of his experiments, and also something nearer the truth, than that published in *Galignani's Messenger*—yet a careful examination of *this* will show that it is very far from containing a true presentation of the actual facts as they occurred.

Dr. Wells "took his idea" from Dr. Cooley.

And, first. One, on reading that paper, would be led to suppose that Dr. Wells was brought to the opinion of the anæsthetic properties of nitrous oxyd, and his choice of that element as a means of producing anæsthesia, by an elaborate process of inductive reasoning; whereas, in truth, he took it from the suggestion of Dr. Samuel A. Cooley, made to him during an exhibition of the "laughing gas." I repeat the paragraph of Dr. Wells's letter, that the evidence may be applied to it the more closely:

"While reasoning from analogy, I was led to believe that the inhaling of any exhilarating gas, sufficient to cause a great nervous excitement, would so paralyze the system as to render it insensible to pain, or nearly so—for it is well known that when an individual is very much excited by passion, he scarcely feels the severe wound which may at the time be inflicted, and the individual who is said to be 'dead drunk' may receive severe blows, apparently without the least pain, and when in this state is much more tenacious of life than when in the natural state. I accordingly resolved to try the experiment of inhaling an exhilarating gas myself, for the purpose of having a tooth extracted. I then obtained some nitrous oxyd gas, and requested Dr. J. M. Riggs to perform the operation at the moment when I should give the signal, resolving to have the tooth extracted before losing all consciousness. This experiment proved to be perfectly successful—it was attended with no pain whatever. I then performed the same operation on twelve or fifteen others, with the same results."

On this particular point, in a deposition given at the request of the representatives of Dr. Wells, Dr. Cooley says:

"STATE OF CONNECTICUT, }
County of Hartford. }

"I, Samuel A. Cooley, a citizen of Hartford, county of Hartford, State of Connecticut, depose and say, that on the evening of the 10th day of December, in the year 1844, that one G. Q. Colton gave a public exhibition in the Union Hall in the said city of Hartford, to show the effect produced upon the human system by the inhaling of nitrous oxyd or laughing gas; and, in accordance with the request of several gentlemen, the said Colton did give a

private exhibition on the morning of December 11, 1844, at the said hall; and that the deponent then inhaled a portion of said nitrous oxyd gas, to ascertain its peculiar effect upon his system; and that there were present at that time the said Colton, Horace Wells, C. F. Colton, Benjamin Moulton, and several other gentlemen, to the deponent at this time unknown; and that the said deponent, while under the influence of the said gas, did run against and throw down several of the settees in said hall, thereby throwing himself down, and causing several severe bruises upon his knees and other parts of his person; and that, after the peculiar influence of said gas had subsided, his friends then present asked if he had not injured himself, and then directed his attention to the acts which he had committed unconsciously while under the operation of said gas. He then found by examination that his knees were severely injured; and he then exposed his knees to those present, and found that the skin was severely abraded and broken; and that the deponent then remarked 'that he believed that a person might get into a fight with several persons and not know when he was hurt, so unconscious was a person of pain while under the influence of the said gas;' and the said deponent further remarked, 'that he believed that if a person could be restrained, that he could undergo a severe surgical operation without feeling any pain at the time.' Dr. Wells then remarked 'that he believed that a person could have a tooth extracted while under its influence, and not experience any pain;' and the said Wells further remarked 'that he had a wisdom tooth that troubled him exceedingly, and if the said G. Q. Colton would fill his bag with some of the gas, he would go up to his office and try the experiment,' which the said Colton did; and the said Wells, C. F. Colton, and G. Q. Colton, and your deponent, and others at this time unknown to said deponent, proceeded to the office of said Wells; and that said Wells there inhaled the gas, and a tooth was extracted by Dr. Riggs, a dentist then present; and that the said Wells, after the effect of the gas had subsided, exclaimed 'A new era in tooth-pulling!'

On the same point G. Howell Olmstead, Jr., says:

"In answer to your question, I would state that I wish to render justice to all parties concerned. Having been connected in business with Dr. Wells, and being very intimate with him, we had a great many conversations together about the effect of the gas, and in those conversations he always told me he derived his first idea of the matter from remarks made by Dr. S. A. Cooley, at a private exhibition of laughing gas, given at the Union Hall, in this city, in the winter of 1844 or 45; and that, from those remarks, and what he witnessed himself, he immediately applied it to his own business."

But enough of this, I do not use it to depreciate the experiments of Dr. Wells, for if the idea which he attempted to carry

out, and the means used by him were really worth anything in his hands, it is of no importance where he got them, but I refer to it to show that his statement of his own case cannot be relied on for full and perfect accuracy.

In his letter, published in *Galighani's Messenger*, of February 17, 1847, he makes a still wider and less excusable departure from the strict and exact fact. After stating the discovery and the performance of an operation on himself and twelve or fifteen others, he says :

"Being a resident of Hartford, Connecticut, (U. S.,) I proceeded to Boston the following month, (December,) in order to present *my discovery* to the medical faculty—first making it known to Drs. Warren, Hayward, Jackson and Morton, two last of whom subsequently published *the same*, without mention of our conference. Since this discovery was first made I have administered nitrous oxyd gas and the vapor of ether to about fifty patients, my operations having been limited to this small number in consequences of a protracted illness which immediately ensued on my return home from Boston, in January, 1845."

Now it is not at all true that either Dr. Jackson or Dr. Morton "*published the same*," that is to say, Dr. Wells' discovery of, or experiments on the anæsthetic properties of nitrous oxyd, either with or without mentioning their conversation with him. But they published, as he well knew, a very different thing, a discovery which each of them claimed to have made; namely—that *sulphuric ether was a safe, certain, and efficient anæsthetic agent*, and they each claimed, as his own, the introduction of the discovery into use, and approval with the medical profession. He seems willing also to convey the idea that he had used sulphuric ether as an anæsthetic agent prior to September 30, 1846, the date of Dr. Morton's public announcement of this discovery; but, as I have already shown, it is not true that he did so. Dr. Wells says, in this paper, that his operations were limited to a small number of cases "in consequence of a protracted illness, which immediately ensued on my return home from Boston, in January, 1845." This is not strictly true if it be given as the whole cause of his limited operations.

Dr. Wells proclaims his experiment a failure, and abandons Anæsthesia.

Dr. Samuel A. Cooley says that he conversed with him just after his return "from Boston, where he had made an experiment which had proved a failure." The witness says :

"He then said to me that he was disappointed in the effects of the gas, and that it would not operate as we had hoped and thought it would, as there was no certainty to be placed upon it; and, consequently, he should abandon it, as he had so much other business to attend to, and as the gas would not operate in all cases alike, and therefore could not be trusted."

So that, although he may have been ill, in the year 1845, he had made up his mind to abandon his supposed discovery as a failure, from the time of his unsuccessful experiment in Boston, until the wonderful success and eclat of Dr. Morton's anæsthetic agent, sulphuric ether, led him to hope that he would be able to contest with him the honor of the discovery.

Mrs. Wells, who has testified in support of her deceased husband's claim, says:

"For some months previous to the delivery of a course of chemical lectures by Mr. G. Q. Colton, in the city of Hartford, December, 1844, Dr. Wells had turned his attention to the discovery of some means of rendering the human system insensible to pain under dental and surgical operations, and made several experiments in mesmerism with reference to that object."

And P. D. Stillman says:

"About the year 1844, I was frequently in Dr. Wells's room; he was making experiments—some in mesmerism—also in gas."

Success of Nitrous Oxyd dependent on Mesmerism.

And it is well known that about that time the world was full of exactly that kind of experiment. Dr. Wells appears to have connected mesmerism in practice with the nitrous oxyd, making out of the elements of both the principal means by which he brought about whatever success he in fact attained.

"When I commenced giving the gas, I noticed one very remarkable circumstance attending it, which was, that those who sat down resolving to have an operation performed under its influence, had no disposition to exert the muscular system in the least, but would remain quiet as if partially asleep. Whereas, if the same individuals were to inhale the gas under any other circumstances, it would seem impossible to restrain them from over exertion."

And Dr. Marcy, one of the principal witnesses in support of Dr. Wells' claim, in his statement No. 4, speaking of one of Dr. Wells' experiments, says:

"By this experiment, two important, and to myself, entirely new facts, were demonstrated: 1st, that the body could be rendered insensible to pain, by the inhalation of a gas or vapor, capable of producing certain effects upon the organism; and 2d, when such agents were administered to a sufficient extent, for a definite object, and with a suitable impression being previously produced upon the mind, that no unusual mental excitement, or attempts at physical effort, would follow the inhalation."

And there is no doubt whatever that in slight operations, such as those of dentistry, that the mentally prepared patient, who has a right understanding with the operator, can by the force of im-

agination and a strong effort of the will greatly modify the proper physical effect of an agent such as this. Hence the undoubted success in many cases of *mesmerism* when used alone in surgical operations.

That Dr. Wells had a full appreciation of this great philosophic truth is clear, from his parting advice to Dr. Cooley, from whose insensibility to pain when under the influence of the "laughing gas," he originally obtained his conception of *anæsthesia*. Dr. Cooley in his second statement says, in reference to a partnership into which he and Dr. Wells had entered—

"Ans. 6. The first intimation I had that Dr. Wells did not intend to carry out our partnership arrangement with me, was when he informed me, several weeks after this arrangement was entered into between us, that he had just returned from Boston, where he had made a public experiment which had proved a failure. He then said to me that he was disappointed in the effects of the gas, and that it would not operate as we had hoped and thought it would, as there was no certainty to be placed upon it; and, consequently, he should abandon it, as he had so much other business to attend to, and as the gas would not operate in all cases alike, and therefore could not be trusted. He advised me to go on with my exhibitions, and thought I could make money out of them, and that, although he had got through with his experiments in the business, he would assist me in any way he could, in order that I might succeed in my lectures; and suggested to me to connect with my lectures and administering the gas, *mesmerism*, and the use of a card of questions which he had prepared—so arranged that a correct answer could be given, by a person in an adjoining room, as to the time of day, &c., by the particular manner in which the question was asked. Feeling some confidence that by following his suggestions I should realize sufficient from the lectures to reimburse me for my time and expenses while in company with him, the matter was then dropped between us, and I pursued my lectures."

And it is not at all surprising, that an *anæsthetic* agent, which required for its successful exhibition *mesmeric* or other mental preparation of the patient, should fail when tested in the Medical Hospital of Massachusetts. Dr. Riggs expresses the opinion, in one of his numerous statements, that if the Medical Hospital, which does so much honor to the city of Boston, had, with all its learned Professors, been placed in Hartford, Dr. Wells would have been the recognised discoverer of *anæsthesia*; and nitrous oxyd would have been the great *anæsthetic* agent. It strikes me as much more probable, if that noble institution, with its learned Professors, had been in Hartford, that the nitrous oxyd, if it had appeared for a moment, as an *anæsthetic* agent, would not have lived out its one short month, but that it would at an earlier day have met the fate which it did meet at its first appearance in that hospital. Dr. Wells testifies to the kindness and attention of the

Professors. Dr. Morton aided him with his instruments in his experiments, and there can be no just pretence of partiality or unfairness. His experiment there, by his own admission, was a failure, and he therefore determined to abandon the use of this gas as uncertain and unreliable.

Dr. Wells notoriously relinquishes his experiments in January, 1845.

That he did abandon it is understood. His first publication after he returned from Europe, March 30, 1847, does not claim to have used it after his failure in Boston, but apologizes for his omission to do so. He says:

"The question is asked, why so much time has elapsed since its first discovery, without its coming into more general use, I can only say, that I have used my utmost endeavors, from the first, to influence physicians and surgeons to make a trial of it, assuring them that my operations were numerous, and perfectly successful. But all were fearful of doing some serious injury with it; and not wishing to incur the responsibility of administering this powerful agent without the co-operation of the medical faculty, and also for the reason that I was obliged to relinquish my professional business in consequence of ill health, my operations have been somewhat limited."

Dr. Wells was afraid to administer the nitrous oxyd without the "co-operation of the medical faculty." But they would not co-operate. Of them he says: "*All were fearful of doing some serious injury with it.*" That is true. So they were, and so they would be now if its use were again proposed. The medical faculty are, as a body, *cautious*, but not *timid*. They were afraid to use nitrous oxyd, lest they should do serious injury with it; but they were not afraid to use sulphuric ether when its anæsthetic qualities were made known to them. They received the announcement of its discovery with shouts of exultation; there was an end of *pain*, and end of *mesmerism* as a pain subduing agent; and it was at once received into universal use by the medical faculty.

And the witnesses speak of it as a thing understood, that Dr. Wells ceased his experiments and gave up the pursuit until after the time the discovery of Dr. Morton had obtained universal use and celebrity.

Dr. Ellsworth, speaking of his failure in Boston in the winters of 1844-5, says:

"He presented it to Dr. Warren, who laid it before his class, but the experiment first attempted partially failing, and no one seeming willing to lend him an helping hand, he ceased making any further personal efforts."

Dr. Cooley says:

"I knew of Dr. Wells going to Boston, soon after the noise in the papers of the discovery of the effects of ether by you, in 1846,

and had a conversation with him, on his return, about your discovery. He made no claim to me of the discovery being his; but, on the contrary, expressed regrets that we had not continued our experiments to a successful termination."

Howell Olmstead, junr., says:

"During the winter of 1845 and spring of 1846, Dr. Wells made application for a patent for a 'shower bath,' in his name, which Col. Thos. Roberts claimed to be equally interested in. Their respective claim was left to the decision of Francis Parson, Esq., of this city, and decided in Dr. Wells' favor. I then made arrangements with Dr. Wells to travel and dispose of rights to manufacture his baths, and at that time I considered that he had abandoned the thing entirely, as he expressed himself to me that the operation in some cases proved a perfect failure, and spoke of his unsuccessful trial in Boston in 1845. * * * *

"About this time the effects of ether had become public in Boston, and he expressed himself as being very sorry that he had not prosecuted his experiments to a successful termination; and he also regretted his stopping the matter when he did, for he thought an immense fortune might be made out of the business, and that the discovery would reflect great honor upon the discoverer."

Dr. Wells cordially recognises Dr. Morton's discovery.

It is very certain too, that Dr. Wells, at the time Dr. Morton's discovery was communicated to him, and thereafter, until the assured success of that discovery astonished, and overwhelmed him, recognised the kind and friendly acts of Dr. Morton toward himself, and did not conceive himself injured by Dr. Morton's having made and claimed the honor of discovering a safe and practical anæsthetic agent. Witness his letter to Dr. Morton of October, 1846, in reply to one of Dr. Morton, informing him of his discovery and his advice to Dr. Morton, given in the presence of R. H. Eddy. They are as follows:

"HARTFORD, CONNECTICUT, October 20, 1846.

"Dr. MORTON—*Dear Sir:* Your letter dated yesterday, is just received, and I hasten to answer it, for I fear you will adopt a method in disposing of your rights, which will defeat your object. Before you make any arrangements whatever, I wish to see you. I think I will be in Boston the first of next week—probably Monday night. If the operation of administering the gas is not attended with too much trouble, and will produce the effect you state, it will, undoubtedly, be a fortune to you, provided it is rightly managed.

"Yours, in haste,

H. WELLS."

Here follows the statement of R. H. Eddy, Esq., as to the interview between Drs. Morton and Wells:

Interview between Drs. Morton and Wells.

"BOSTON, February 17, 1847.

"R. H. DANA, Esq.—*Dear Sir:* In reply to your note of this morning, I have to state that about the time I was engaged in preparing the papers for the procural of the patent, in the United States, on the discovery of Dr. Morton for preventing pain in surgical operations, by the inhalation of the vapor of sulphuric ether, I was requested by Dr. Morton to call at his office to have an interview with the late Dr. Horace Wells, who was then on a visit to this city, and who, Dr. Morton thought, might be able to render him valuable advice and assistance in regard to the mode of disposing of privileges to use the discovery. Accordingly I had an interview with Dr. Wells. During such meeting we conversed freely on the discovery, and in relation to the experiments Dr. Wells had been witness to in the office of Dr. Morton. The details of our conversation I do not recollect sufficiently to attempt to relate them, but the whole of it, and the manner of Dr. Wells at the time, led me, in no respect, to any suspicion that he (Dr. Wells) had ever before been aware of the then discovered effect of ether in annulling pain during a surgical operation. Dr. Wells doubted the ability of Dr. Morton to procure a patent—not on the ground that he (Dr. Morton) was not the first and original discoverer, but that he (Dr. Wells) believed the discovery was not a legal subject for a patent. He advised him, however, to make application for one, and to dispose of as many licenses as he could while such application might be pending; in fact, to make as much money out of the discovery as he could, while the excitement in regard to it might last. I must confess that when, some time afterwards, I heard of the pretensions of Dr. Wells to be considered the discoverer of the aforementioned effect of ether, I was struck with great surprise, for his whole conversation with me, at the time of our interview, led me to the belief that he fully and entirely recognized the discovery to have been made by Dr. Morton, or at least partly by him and partly by Dr. C. T. Jackson, as I then supposed.

"Respectfully yours,
R. H. EDDY."

From this letter, and from the conversation above detailed, it is clear that Dr. Wells not only did not feel himself wronged by Dr. Morton, but that he did not think himself in possession of an available anæsthetic agent. He could not fail to know, and on his return home he declared he did know that Dr. Morton's "compound" was sulphuric ether, and his conversation on this occasion also shows that he did not then claim to have been the discoverer of its application as an anæsthetic agent.

Further recognition of Dr. Morton's discovery by Dr. Wells.

It shows, also, that he thought Dr. Morton's discovery as well as his own, a humbug, though he does not say so. He was apprised that Dr. Morton was about to apply for a patent, and he did not believe he would get one. He advised him to sell licenses while his application was pending, and make as much money out of it as he could while the excitement lasted—very like the advice which he gave to Dr. Cooley as to the use he should make of the nitrous oxyd. He was evidently impressed with the belief that the success of Dr. Morton's anæsthetic agent depended, also, to some extent, on the mental preparation of the patients.

Dr. Wells and friends lose all confidence in Nitrous Oxyd.

But I am prepared to show, beyond all cavil, that neither Dr. Wells nor Dr. Riggs, nor Dr. Marcy, had any confidence in nitrous oxyd as an anæsthetic agent. They did not believe it to be *efficient*, and at the same time, *safe*. They had used it only in dental operations prior to the discovery of Dr. Morton, and they were satisfied, that in those operations, it ought not to be used.

The Hon. James Dixon, an intelligent man—a member of Congress, and the friend and advocate of Dr. Wells, thus testifies:

Ques. Did you ever have a conversation with Dr. Wells in regard to the use of nitrous oxyd, in which he discouraged its use by you in having teeth extracted; if so, state fully the conversation?

Ans. I had repeated conversations with Riggs and Wells. Think both said that for so slight an operation as pulling teeth they would not advise its use, but that in severe surgical operations, as amputation, it should be used, but in slight operations it was not best to run the risk of using the gas.

Mr. Dixon was a man whose life and health were of value, it would not do, therefore, to overdose him with nitrous oxyd, lest it should superinduce asphyxia. He was an intelligent man, who could not by previous mental discipline be induced to feel no pain, or pretend that he felt none, under the influence of a moderate and safe inhalation; those gentlemen, therefore, both advised him, and I have no doubt honestly and well, that "in slight operations" as pulling of teeth, "it was not best to run the risk of using the gas," and there was not much probability of his calling on them to administer it "in a severe surgical operation," but if he had so called, I have no doubt they would both, as honestly, and more decisively, have advised him against its use. Indeed, in some few cases, in slight operations, and on probably peculiar constitutions, the operation of the gas appears to have been successful and innocent. But we have here the distinct avowal of both Drs. Wells and Riggs, that they did not consider it generally so, but thought its effects ought not to be hazarded

except in severe surgical operations. Why did they not tell all their customers so? If they had done this the writer of the "Examination" might, with some show of propriety, have talked of their "sincerity, rectitude, truth, and honor."

Entertaining the opinions which they did entertain, and which, when consulted by an intelligent man and a friend, they both expressed, how could these men hold out the false pretence which they were then holding out to the public? How dare they administer their dangerous nostrum to patients, who, though perhaps poor and ignorant, have human feelings and human souls, and who relied the more fully because of their own want of knowledge, on the truth of their physicians, and trusted their own lives and health, and the lives and health of their wives and children the more implicitly in their hands? It seems, however, that they could do so, and yet, in the opinion of the writer of the "EXAMINATION," be men of "sincerity, rectitude, truth, and honor."

Mr. Dixon was not mistaken in his recollection, nor is he, on another occasion, much nearer the time of its occurrence, detailed a similar conversation with Dr. Wells to Mr. Edward Warren, who testifies to it as follows:

Further proof that Dr. Wells had abandoned the use of Nitrous Oxyd.

"1st. Do you recollect a conversation in Washington with Hon. James Dixon? When and what was it?"

"Ans. While in Washington, endeavoring to induce our Government to introduce this discovery into the army in Mexico, and after getting the matter referred to a select committee of the House of Representatives, I learned with some surprise, that the Hon. James Dixon, a member of Congress from Connecticut, and townsman of Dr. Wells, had sent in a sort of informal protest to the committee's further proceedings, until a constituent of his, Dr. Wells, had furnished certain testimony in his favor. This was early in January. I immediately called on Mr. Dixon, who stated that Dr. Wells had requested his assistance, and had promised to furnish him certain evidence of his claims; but, having gone to Europe without procuring it, he did not think it would arrive at all, and, if not by a certain day, then near at hand, he would aid me in my efforts; at the same time saying, as near as I can recollect, that, about two years before, he had heard that Dr. Wells was making some experiments with nitrous oxyd gas, to prevent pain in extracting teeth; that, having a severe toothache, he called on him, proposing to take this gas, but that Dr. Wells informed him that, after giving it to thirteen or fourteen patients, with only partial success, he had abandoned its use as dangerous, and dissuaded him from resorting to it."

Nitrous Oxyd discredited as an Anæsthetic agent by Dr. Wells's experiments.

Dr. Marcy, with whom Dr. Wells counselled much, and who operated in and reported the operation on the scirrous testicle above referred to, under the influence of the nitrous oxyd, and certifies to the success of the operation, entertained the same opinion with Doctors Wells and Riggs. He did not believe that nitrous oxyd was at the same time safe and efficacious as an anæsthetic agent. In an article published in the Journal of Commerce, December 30, 1846, when the medical world was active with Dr. Morton's discovery, he says:

"My own opinion in regard to the use of the nitrous oxyd gas, the sulphuric ether, or an other stimulant, which acts upon the system in such a manner as to render the body insensible to external impressions, is, that it is decidedly unsafe, and that in no given case can we be certain that it will not cause congestion of the brain or lungs. I have known the use of both the first named articles to give rise to temporary congestion of the brain and insanity."

He was so well satisfied that nitrous oxyd was a failure, that he could have no faith in *any anæsthetic agent*.

The state of the discovery then stands thus: On the 7th day of December, 1846, two months after Dr. Morton's announcement, Dr. Wells claims to have administered the nitrous oxyd as an anæsthetic agent in twelve or fifteen ordinary cases of dentistry, at Hartford. He formed the opinion, and he expressed it to the Hon. Mr. Dixon, that *it was dangerous* and ought not to be used in such slight cases. His nearest and most intimate friend and supporter, Dr. Riggs, expressed the same opinion. Dr. Wells had tried it once in the Medical Hospital of Boston—it proved a failure. On his return to Hartford he told Dr. Cooley, with whom he had agreed to form a partnership for its use, that "it would not operate as we hoped and thought it would, as there was no certainty to be placed in it; and consequently he should abandon its use," and he did abandoned it and go into other business; dealing in patents for sifters for coal ashes; bath-tubs, and finally dealing in pictures. Not more than one or two cases of his use of the nitrous oxyd in tooth pulling is even doubtfully proved after his return from Boston, in the winter of 1844-'45; and except in the case of his exhibition at Boston he had never extended its use beyond the circle of his own friends in the city of Hartford; and if he, or any of the small circle of friends who took their opinions on the subject from him, thought or said anything about *sulphuric ether*, it was merely to pronounce it inferior to nitrous oxyd for the purpose of anæsthesia.

Now let us suppose that all he did, and all he thought, and what he said on this subject to his confidential friends, as far as we have been able to gather it from the evidence, had been laid at

once before the medical profession of America and Europe, would they have received it; would they have been justified in receiving it as a discovery of practical anæsthetic qualities in nitrous oxyd? Would they, as the professional and trusted protectors and preservers of human life and human health have been justified in bringing it at once into general use in their practice? A negative answer to these questions, and a negative they must have, *answers away Dr. Wells' claim.* Anæsthesia generally had gained nothing by his experiments, they did not stand as well as the reported experiments of Mr. Daunol with the ingredients of the *spongi somnifera*. Nitrous oxyd did not stand as well in his hands as it did when it came out of the hands of Sir Humphry Davy. Dr. Wells did not prove that nitrous oxyd was a *safe, certain, and efficient anæsthetic agent*, and he did not reasonably satisfy the medical profession that it was so. On the contrary, he proved to his own satisfaction that it was not either certain, efficient, or safe, and the only instance in which he presented it to a medical public out of his own circle of private friends was that in the Medical Hospital at Boston, where it was considered a "*humbug*." This is all that Dr. Wells had done for anæsthesia prior to the discovery by Dr. Morton; and the public announcement of that discovery, and its universal and enthusiastic reception by the learned medical faculties of Europe and America.

Attempt to rival Sulphuric Ether by a revival of Nitrous Oxyd.

Subsequent to that time a faint effort was made by Doctor Wells and a few of his professional friends in Hartford, to revive the use of *nitrous oxyd* as an anæsthetic agent—to extend its use and make it a rival to *sulphuric ether*—evidently with the hope of being able to connect subsequent experiments, if they could make them successful, with the past, which so far failed that they were abandoned, and of the two to make out *the first available discovery*. Dr. Cooley in answer to interrogatories, says:

"Ques. You say, moreover, that you administered gas when requested so to do by surgeons and dentists. Was not this subsequent to the ether discovery?"

"Ans. 8. Yes, it was after the ether discovery, in 1846, that I administered the gas for surgeons and dentists—there then being an attempt, by us all, to renew the experiments, as the public and ourselves had lost confidence and doubted the practicability of the thing, until the successful introduction of ether. I administered gas for Dr. Ellsworth, an intimate friend of Wells, and also to several others."

Second failures of Dr. Wells in attempting to introduce Nitrous Oxyd.

The first attempt of which we have any proof, beyond the slight operation of pulling teeth, for which Dr. Wells had, as already shown, condemned its use, was by Dr. E. Marcy, on the

17th of August, 1847. He pronounces the operation successful. It was in its nature a very brief one—the removal of a scirrous testicle. This patient, he says, did, at the first incision, manifest some pain, but afterwards, till the operation ended, there was not the slightest consciousness. Dr. Wells administered the gas. The object of the experiment with the *gas*, was to make it a rival of *sulphuric ether*, already established in the profession. It was intended to make and prove a case—a foregone conclusion in the minds of all present except the *subject* of the operation; from him we hear nothing. If prudence had dictated it, his certificate or affidavit might have been taken; but it was not. Dr. Taft, however, forgetting the slight manifestation of pain testified to by Dr. Marcy, says the part was removed *without pain* to the patient.

The next in the order of time, is the case of Goodale, whose thigh was amputated by Dr. Ellsworth on the 1st of January, 1848, in the presence of Drs. Hall and Hawley. Dr. Wells administered the gas.

Dr. Ellsworth commences his report of the case with an apology: "The lad was in a very unpleasant state of mind, being greatly alarmed at the number of persons standing round, yet ten or twelve inspirations rendered him perfectly quiet." He had *sensation* during the sawing of the bone, but Dr. Ellsworth thinks it was not pain. The effect of the gas went off before the operation was completed; the lad complained bitterly, and the gas had to be again administered, which made him quiet. On the whole, Dr. Ellsworth thinks it a favorable operation.

Dr. Hall says, "*the boy during the operation was entirely quiet*," and he thinks the operation "very successful." In this he does not agree with Dr. Ellsworth, unless in his opinion the whole operations consisted in lopping off the limb. Dr. Hawley says "this operation was performed with, apparently, little suffering by the boy; and on inquiry after the operation, he replied that he felt no pain when the limb was amputated." The boy's certificate or affidavit was not originally taken by Dr. Wells, but he was afterwards examined in behalf of Dr. Morton, and testified as follows:

Ques. What is your residence, age, and occupation?

Ans. I reside in East Hartford, my age nineteen years, am a cigar maker.

Ques. Have you had a leg amputated, by whom and when, and was anything administered to you to prevent pain, if yea, when and by whom?

Ans. I had a leg amputated by Dr. Ellsworth, I think 1st of January, 1848; something was given me to prevent pain by Dr. Wells, I inhaled it from a bag.

Ques. How many times did you inhale from the bag?

Ans. Twice.

Ques. Will you state whether Ellsworth requested Dr. Wells to give it again because you were in much pain?

Ans. He did.

Ques. What did Dr. Wells say when Dr. Ellsworth requested him to give more gas?

Ans. He said he thought it would not be best as I was too weak to have any more.

Ques. Did Dr. Wells decline giving any more?

Ans. He did.

His deposition was again taken in behalf of Dr. Wells' representatives January 25, 1853, and is as follows:

Deposition of Henry A. Goodale, of Hartford, Connecticut.

"I, Henry A. Goodale, of Hartford, being of lawful age, depose and say: That I resided in East Hartford in 1848, at which time, on the 1st January, my leg was cut off by Dr. Ellsworth in the presence of Dr. E. Hall, Dr. H. Wells, Henry Kilbourn, and others, but I do not remember who at the exact time of the operation. Dr. Wells gave the gas out of a large bag. I was afraid in first to take the gas, but finally was persuaded so to do. Do not remember being taken up and brought to the edge of the bed. Remember seeing the knife, but not until the operation was over. Do not remember when the knife entered the flesh, did not remember when the knife was cut out, think I felt a kind of jar when the bone was sawed. Do not remember when Dr. Ellsworth cut off the large nerve, but remember taking gas several times. Was not sensible of suffering during the cutting and sawing. When Dr. E. began to sew up the wound it hurt me a great deal, and I asked for the gas, do not know whether more was given or not. I felt pain after the leg was taken off while it was being dressed, and after I was put back into bed. Do not think that I felt any pain until the leg was off. Am sure I was a great deal better off for taking the gas, than I should have been otherwise. I think the gas was given twice and refused once when I asked for it. I think some one said I was too weak to bear any more; this was while the stitches were being taken. Do not remember with certainty who said I was too weak. I stated in a former deposition, if I remember right, in reply to the question, "whether I experienced pain during the whole operation," that I did. I think this has been misunderstood, for I did not mean that I experienced pain continually during the operation, but merely that during the operation there was a time when I experienced pain, and that was during the dressing and tying the arteries, meaning the time after the leg was removed, but not the whole time when Dr. E. began to cut until the stump was done up, but only during the part as before expressed toward the close, during the dressing and tying the arteries.

"HENRY A. GOODALE."

Hartford, January 25, 1853.

Sworn before

H. L. RIDER, N. P.

The whole case, as reported and proved, shows what may be not inaptly called a bungling operation. The anæsthesia was imperfect, and not continuous—the boy had sensation and suffered pain—and Dr. Wells was evidently afraid, and with good reason, so to administer the gas as to make insensibility perfect, and he dared not continue it to the close of the operation.

The next and last case was that of Mary Gabriel, to whom Dr. Wells administered "the gas," and from whose right shoulder Dr. S. B. Berresford removed a fatty tumor weighing $6\frac{1}{2}$ ounces. We have the affidavit of the patient: a perfect state of anæsthesia was produced, closely bordering on asphyxia, and she felt no pain; but Dr. Berresford, who is evidently a friendly though an honest witness, testifies thus:

Ques. Was the above operation as successful and satisfactory as any you have ever performed with any other anæsthetic agent?

Ans. It was quite as successful as any, so far as destroying sensibility was concerned.

Ques. You say the operation you have spoken of was quite as successful as any you ever performed, so far as destroying sensibility was concerned. In what was the operation not as successful?

Ans. The patient was very faint and depressed for about half an hour after recovering her perception.

Ques. Was not the administration of the gas in this case attended with asphyxia?

Ans. I think not.

Ques. What was the appearance of the face of the patient?

Ans. At this distance of time I cannot remember, to speak with precision.

Ques. Have you any idea that Dr. Wells ever perfected, and brought into general use, nitrous oxyd gas as an anæsthetic agent in surgical operations?

Ans. No, sir; I do not think he did.

Ques. Is nitrous oxyd, in your judgment, a valuable anæsthetic agent in surgical operations?

Ans. I have never used it, but in the case above alluded to, and give a decided preference to chloroform, in surgical operations.

Dr. Berresford saw the danger of the inhalation of nitrous oxyd until anæsthesia became perfect; and although he thinks asphyxia was not produced in this case, yet he never used the nitrous oxyd again, nor did any one else—that was the end of its career as an anæsthetic agent. It had run the race of its second revival, and was a second time discredited and abandoned.

The proof of this is inherent in the transaction itself, as I have briefly sketched it; but there is also extrinsic evidence of the fact.

Cyrrel Bullock says :

Ques. Have you ever seen nitrous oxyd administered for the purpose of extracting teeth? If yea, about what time, by whom, and where, and was it successful?

Ans. I have, about the year 1846 or 1847, at the house of Mr. P. Holt, in this city, by S. A. Cooley. It was not successful. It was administered that I might extract some teeth, but it did not produce insensibility, and I did not extract the teeth.

Ques. What was the effect produced on the patient?

Ans. She appeared wild and restless.

Dr. Cooley says :

"The last time that I exhibited it was to a lady at Dr. Greenleaf's office, which, in a great measure, proved a failure, and then ether and chloroform assumed the place of the gas, and operations were more successful in the use of them; and since then I have had but little to do with the matter, as other business has taken up my time and attention."

And Dr. Greenleaf says of that exhibition :

Ques. Have you ever made use of nitrous oxyd gas in your dental business, to prevent pain in extracting teeth?

Ans. No, sir.

Ques. Have you ever seen it administered; and, if so, by whom, and where?

Ans. I saw it administered once, by Dr. S. A. Cooley, which produced vomiting. This was at my office.

Ques. Was the experiment entirely unsuccessful?

Ans. Yes.

And this was the end.

I have thus hastily sketched the process of reasoning which has brought me to the opinion which I have already announced, as to the respective claims of Dr. Wells and Dr. Morton, to the honor of having given to his country and the world a *safe, certain, and efficient* anæsthetic agent. I could have wished to go more fully and minutely into the examination of the question, but the near approach of the close of the session, and the consequent pressure of business upon me, admonish me that I must have done. And I am gratified to be able to refer, in support of the leading opinion which I have expressed, to the appended memorial signed by a list of names in the medical and surgical profession which would do honor to any age or any country.

Refutation of personal abuse in the "Examination."

Before concluding, however, justice demands a vindication of the character of Dr. Morton, libelled and villified as it is by the author of the "Examination," and of this I will merely say :

That the IXth head of the publication and the statements therein contained, so far as they impeach the integrity and propriety of

the conduct of Dr. Morton, or impute to him an attempt to silence the Wells claim by money, *are false*. Of this I am assured by the persons whose names are vouched to substantiate the charges; but as it will, doubtless, be a subject of future investigation, it is not *my* province to enter upon it, even did time permit.

Equally false are the assertions in the "Examination," that the letter from Dr. Wells, dated October 20, 1846, was improperly obtained from him, and then printed in 1852, from a copy furnished by Dr. Morton, which differed in a material point from the original. His letter itself, was filed by the representatives of Dr. Wells, from which the copy in the report was printed, the committee themselves comparing it with the proof sheets.

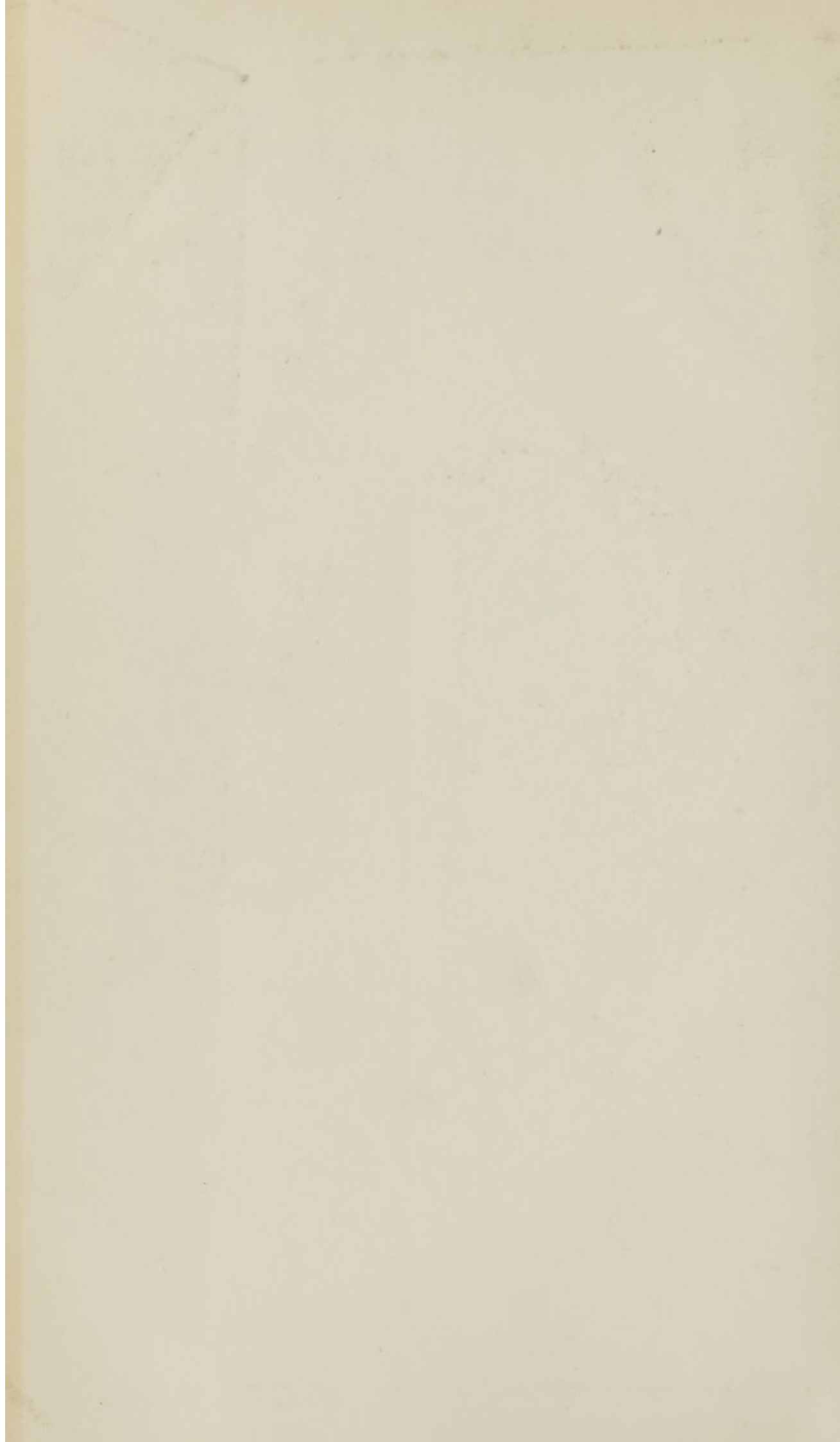
Another paragraph, on page 80, shows that the writer entirely lost sight of the truth, in attempts to invest his arguments with spurious strength, derived from an unhallowed alliance with slanderous invective. Dr. Wells, we are informed, "perished by his own hand, in a paroxysm of insanity, induced, as many of his friends believe, by the excitement and irritation of this controversy with Morton." Now, files of the New York papers show that the unfortunate man committed suicide in a prison cell, to which he had been committed for throwing vitriol upon the daughters of shame who promenade Broadway. Yet his death is now unhesitatingly laid at the door of Dr. Morton, with an envenomed effrontery rarely witnessed, which has invited this statement of unfortunate truths.

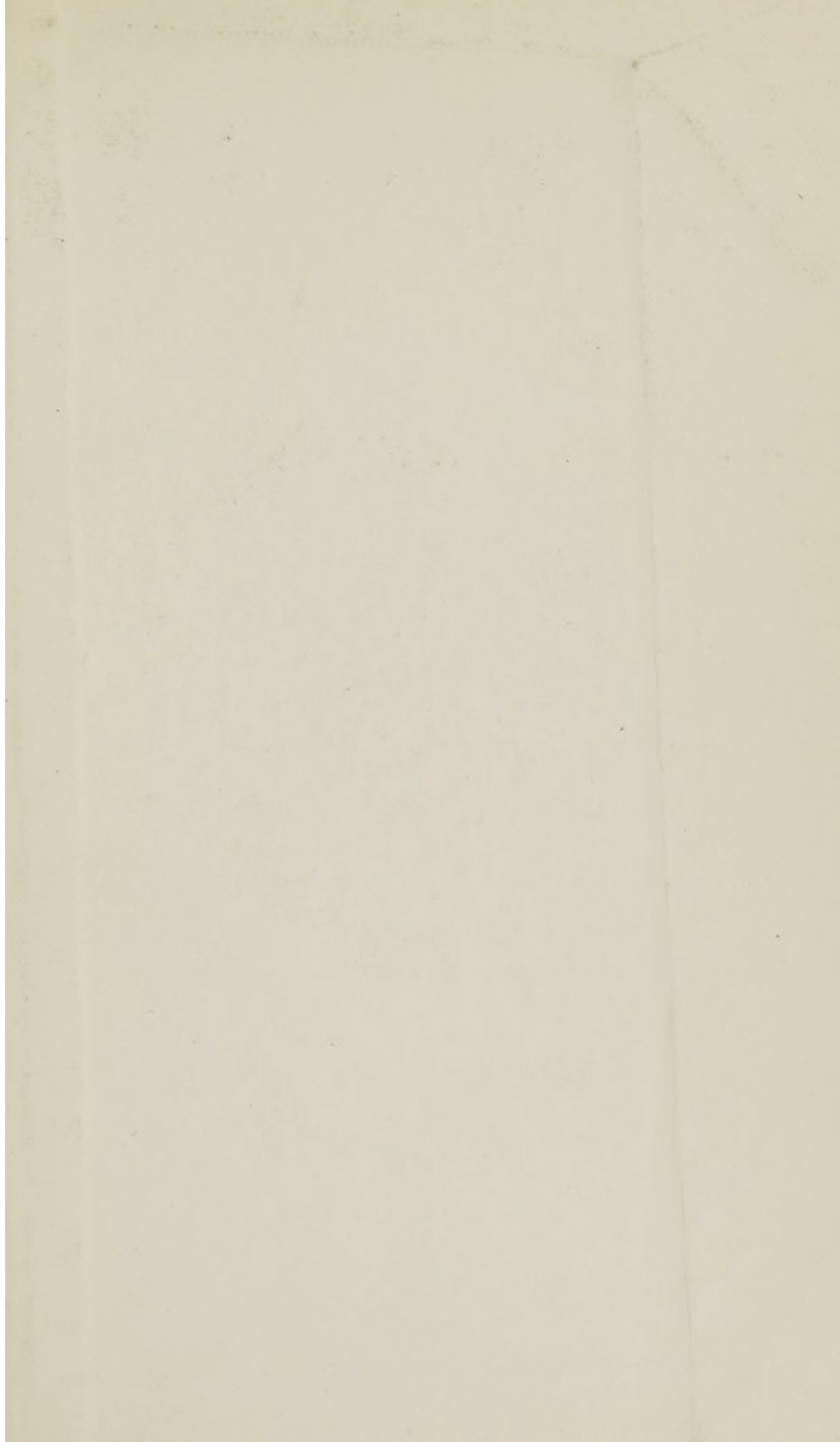
In this same paragraph, after having thus outrageously defied the dictates of truth and respect to the memory of the dead, the writer indulges in one of the phantasies which his partisan imagination delights to conjure up. "Dr. Wells," we are informed, "did not live to receive the cheering news of the final recognition of his claims by the highest medical authority of Europe." What was this tribunal? The Institute of France, (which awarded to Dr. Morton its largest gold medal)—the famed Medical College at Paris—or one of the similar institutions in other large cities? Not at all. We find on the preceding page a statement that the recognition came from the "Parisian Medical Society"—a simple unchartered society, formed a few years since by English and American students, (with a few exceptions,) who united themselves in a foreign land to rehearse their exploits at the dissecting table, and to accustom themselves to converse about their profession. And it is this social club which the author of the "Examination" magnifies into "the highest medical authority in Europe." Arguments like these, which have no foundation save in the positive imagination of their coiner, show the real weakness of the cause they are intended to sustain, backed by gross libels and defamatory charges.

It is in vain to attempt success by depreciating the character or capacity of Dr. Morton. He is recognised wherever known, as a man of integrity and honor, of great enterprise and of high

capacity. Conscious of his original claim to this glorious discovery, he has decidedly asserted his rights when necessary, amidst sore buffetings of fortune, and the close-cleaving malignity of powerful adversaries, certain that he would eventually receive a universal recognition of his position. Institutions, learned men, and able jurists, both at home and abroad, have gradually united in awarding to him the glory of a discovery that will solace his declining years, and impart to his memory a hallowed radiance, as a benefactor of the human race. He proposed to the select committee (as his printed memorials on the files of the Senate show) a *projet* of the bill now reported, referring the subject to the decision of a judicial tribunal, and has ever avowed his readiness—in the noble language of De Foe—"to stand or fall by the public justice of his native land."







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