
Congressional Report

OF

HON. EDWARD STANLY, OF NORTH CAROLINA,

AND

HON. ALEXANDER EVANS, OF MARYLAND,

ON THE

ETHER DISCOVERY,

THIRTY-SECOND CONGRESS, FIRST SESSION.

1852.

1801

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, ON THE 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.

6
PRINTED BY AUTHORITY OF
THE MINORITY OF THE COMMITTEE.

1852.

WOOD LIBRARY-MUSEUM

Accession no. RB7212

WO

Z11

E81

U5S

1852

RB

C.2

R E P O R T .

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 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 declarations of Mr. Morton, notwithstanding the evidence which has been submitted to show his bad character, and his own contradictory statements. It suppresses the material facts in the case, and presents conclusions at variance with the highest evidence. 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 been never 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.

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 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.

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.

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 Nov. 13th, 1846.

3. Dr. Jackson discovered *a new law of the human constitution*, to wit, that the nerves of sensation may at 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.

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 it has the power safely and surely to destroy *any* degree of pain.

5. He 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.

The facts above stated are confirmed by the most direct and 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 :

"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 analyses 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. * * * * *

"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, 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, fullness 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.

"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."

Dr. Jackson explains the process of reasoning, upon which he 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 paralyzed 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 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 of the continent 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 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 sulphuric 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 statements 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 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 in ten or fifteen minutes you would probably be free from pain. I replied: 'Were I subject to attacks so severe, and of such short duration, I should inhale nitrous oxide.' My remark was not intended to be understood seriously. You answered: 'Some of your sulphuric ether would be much better;' and added, 'Are you aware that, when inhaled, it produces complete insensibility?'—or words to this effect.

"I was aware of this fact; but, at the time, my impression was, that either nitrous oxide or the vapor of ether, inhaled frequently, would be attended with evil consequences, if not fatal.

"The ether to which you referred was some which I had prepared 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, says:

"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 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 Mt. 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 Mt. 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 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 :

“New York, Dec. 9, 1851.

“Dr. Charles 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 the administration of ‘ether vapor,’ by pulmonary inhalation.

“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. Wm. 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 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. Jackson 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's office, on Bennet-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 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, A. D. 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, herein before named, and made oath that the foregoing statements, by him signed, are true.

"Before me,

"CHARLES E. ALLEN,
"Justice of the Peace."

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, Dec. 19th, 1851.

"Dr. Charles T. Jackson, Boston,— 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 communicated 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 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.

"Respectfully, I am,

"Your friend, &c.,

"D. JAY BROWNE.

"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:

"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 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.

"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 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.

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 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 pecu-

* 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.

liar 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 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 *a 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 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.*

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 feed 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 should have strong confidence in deductions from his own reasonings and limited experi-

* “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.” — *L. Elie De Beaumont, Systèmes des Montagnes*, Tome ii., page 702. Paris. 1852.

ments, 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 etherization. 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 downwards 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 heavens. He even suffered his grand discovery to be first verified by others. A month before he performed the celebrated experiment with the kite, a French philosopher, Dalibard, act-

ing 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-dragon, to watch it during a thunder-storm, and the ex-dragon, 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-dragon, and not upon that of Franklin, should be inscribed the commemorative motto, "*Eripuit fulmen cælo.*"

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 anesthesia 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."

The same laws recognized 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 Priestley. 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 Priestley, 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 ethereal 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 princi-

ples declared by Rev. William Whewell, Historian of the Inductive Sciences, who says:—"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." (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 Hooke, 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.

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 5th 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 Dr. Jackson's induc-

tion 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.

Fortunately Dr. Jackson's communications to Mr. Morton were made before two highly intelligent and unimpeachable witnesses, gentlemen of education and character, Messrs. George O. Barnes and James McIntyre. Their testimony, reduced to writing within 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 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 will 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 a 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, 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 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; 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 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.

"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.

"Boston, May 21, 1847."

"GEORGE O. BARNES.

"Sworn before me,

"JOSIAH QUINCY,

"*Justice of the Peace.*"

"I, James McIntyre, of Bangor, in the State of Maine, depose 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 set 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 oxid 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 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 physician, or the dentist, have been held accountable for the calamity? He who incurred the largest risk is entitled to the largest honors and rewards 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 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.

"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. 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 first 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 :

"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 eleventh 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 eleventh 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 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 :

"'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 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:

"At that time—on or about the last of September or the first of October, —I had a conversation with Dr. 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 Dr. 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 that Dr. Charles T. Jackson, of Boston, was its sole discoverer, and that he (Dr. Jackson) had first communicated it to him.

"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."

Says Daniel S. Blake, of Boston :

"On the twenty-first 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.

"The first time that 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 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.

"COMMONWEALTH OF MASSACHUSETTS, }
Suffolk, } ss.

"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 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 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 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, }
Suffolk, } ss.

"City of Boston, December 19th, 1851.

"Then personally appeared the abovenamed 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."

The following is the affidavit of Spear, and it is introduced to show how completely he has contradicted himself 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 25th, 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 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 William 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."

It was 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.

" But the falsehood of this vital part of the testimony in favor of Morton's pretensions to prior experiments, does not rest upon the confessions 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, Novem-

ber, 1846, had never inhaled the vapor of sulphuric ether, and that Spear assured him, a 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 Burnet, 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 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.

"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 gases proper to be used in these bags; and that he saw nothing of Morton after this interview, until some

time in the month of 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 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 the 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 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."

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 recognized 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.

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 with the current proofs in the case." Dr. Jackson thus stands charged as a false calumniator. The undersigned, 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 vapor 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 25th, 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:

TERMS FOR DENTISTS.

In cities of 150,000 inhabitants, \$200 for five years.									
"	"	"	50,000,	"	"	"	150,000,	\$150	for five years.
"	"	"	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 charges made for performing operations wherein the discovery is used, &c., &c.

"W. T. G. MORTON."

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 30th, 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 "Dr. 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 stupefying 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 the 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 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.

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 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

* 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 *Médecine Opératoire*, 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.

applied this means to a 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 discovery passed successfully the *experimentum crucis*, Dr. Morton *was in full and sole undisputed possession*. It was not until some time 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 of 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 16th, 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 oversanguine 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 26th, 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 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.

"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."

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."

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, 21 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 had derived his knowledge of the substance used from you.

"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 the 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, show 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 step 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."

"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 November 13th, 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 13th, and the other dated December 1st; the third addressed to the King of France, Louis Philippe. 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, 3d January, 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 first 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; 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 cacheté*), 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.

"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 6th, 1847.

"To Dr. C. T. JACKSON, Boston, Massachusetts."

Post mark, January 7th, 1847.

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 30th, upon an article prohibiting medical advertisements, M. le Comte 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 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 lithotrity, 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 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 ether 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 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 the discoverer."

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 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."

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 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, he will kill somebody yet. ' "

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

* 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.

somebody on account of his recklessness in the *mode of administering* ether, — that he regretted that he had entrusted 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 did he undervalue it, nor has he ceased to assert his claims as the sole discoverer."

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 10th, 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.

"I am, respectfully and sincerely, your friend,

"HENRY SUMNER.

"To 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."

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*, 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 the 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 Anaesthesia.

The majority refer 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:

"HOUSE OF REPRESENTATIVES, }
Washington, April, 1852. }

"Sir:—Having learned that you were one of the Trustees of the Massa-

chusetts 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, to request 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 evidence 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 this 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 they 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 proper 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, the 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 the 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

A book has been exhibited to the committee, entitled, "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

declares that 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' " 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*, merely, 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, 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 admissions of facts* are not unimportant ; inasmuch as his violent bias against Dr. Jackson, and partisan advocacy of Mr. Morton's claims, make 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.

Admissions 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 at a meeting of the American Academy of Arts and Sciences, held Nov. 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, Nov. 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 everything that, according to the unanimous decision of mankind, in the case

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. Bowditch, 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.

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 preoccupation 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.)

"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 ethereal 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 two distinct things which

of Franklin's great discovery, is essential to render valid Dr. Jackson's claims 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 facts admitted by the aforesaid gentlemen, but by arguing that those facts are "improbable," notwithstanding they are established both by the admissions of Dr. Jackson's principal opponents, and by irrefragable evidence.

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 thus received its complement. 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 recognized 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

his fact, he addressed himself to the surgeons of the Massachusetts 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 recognizes 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 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:*

"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 connection 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.

* It should be observed that M. Velpeau was in correspondence with some of the surgeons of the Massachusetts General Hospital.

"We, therefore, feel bound, earnestly and respectfully, 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 9th, 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 Massachusetts General Hospital.*

J. B. S. Jackson, M. D., *one of the Physicians of the Massachusetts General Hospital.*

Silas Durkee, M. D.

Ephraim Buck, M. D.

Woodbridge Strong, M. D.

William J. Walker, M. D.

Samuel Morrill, M. D.

Horace Dupee, M. D., *one of the Physicians of the Lying-in Hospital.*

Henry Bartlett, M. D.

Franklin F. Patch, M. D.

E. J. Davenport, M. D.

Henry A. Ward, M. D.

John Flint, M. D.

Josiah F. Flagg, M. D.

Wm. P. Dexter, M. D.

W. S. Coffin, M. D.

E. Whitney Blake, M. D.

J. M. Phipps, M. D.

George F. Bigelow, M. D.

Joshua Tucker, M. D.

Henry A. Martin, M. D.

Charles M. Windship, M. D.

Joseph H. Streeter, M. D.

Horatio G. Morse, M. D.

J. W. Warren, Jr., M. D.

John B. Alley, M. D.

J. L. Williams, M. D.

Geo. W. Otis, Jr., M. D.

George Russell, M. D.

P. E. Molloy, M. D.

James Hyndman, M. D.

Harvey E. Weston, M. D.

Abram Paige, M. D.

Daniel Harwood, M. D.

D. M. Parker, M. D.

E. T. Eastman, M. D.

S. S. Whipple, M. D.

E. C. Rolfe, M. D.

C. A. Walker, M. D., *Physician to the City Institutions.*

Wm. H. Thorndike, M. D.

Robert Green, M. D.

F. L. Chase, M. D.

J. B. Taylor, M. D.

Jona. W. Bemis, M. D.

Jacob Hayes, M. D.

Luther Johnson, M. D.

J. F. W. Lane, M. D.

Wm. W. Morland, M. D.

John Bacon, Jr., M. D.

F. S. Ainsworth, M. D.

Nath. B. Shurtleff, M. D.

Buckminster Brown, M. D.

J. V. C. Smith, M. D., *late City Physician.*

W. G. Hanaford, M. D.

E. Palmer, Jr., M. D.

James Ayer, M. D.

Ira W. Tobie, M. D.

Fytche Edward Oliver, M. D.

Le Baron Russell, M. D.

A. A. Watson, M. D.

Geo. H. Gay, M. D.

Geo. Stephens Jones, M. D.

John. A. Tarbell, M. D.

R. W. Newell, M. D.

T. Fletcher Oakes, M. D.

Henry W. Williams, M. D.

John Odin, Jr., M. D.
 Charles W. Calkins, M. D.
 Howard Sargent, M. D.
 Horace Stacy, M. D.
 S. Cabot, Jr., M. D.
 Robert Capen, M. D.
 Benjamin S. Codman, M. D.
 S. A. Bemis, *Dentist*.
 John Clough, M. D.
 S. L. Abbott, M. D.
 D. Humphrey Storer, M. D., *one of*
the physicians Mass. Gen. Hos-
pital.
 J. Sydenham Flint, M. D.
 Henry S. Lee, M. D.
 Calvin Stevens, M. D.
 David Osgood, M. D.
 Elisha G. Tucker, M. D.
 Moses W. Weld, M. D.
 Henry James Martin, M. D.

Thomas B. Wales, M. D.
 Geo. Hubbard, M. D.
 G. C. Holbrook, M. D.
 J. E. Herrick, M. D.
 Alanson Abbé, M. D.
 W. W. Codman, M. D.
 John C. Hayden, M. D.
 William F. Channing, M. D.
 M. C. Green, M. D.
 E. D. G. Palmer, M. D.
 D. M. B. Thaxter, M. D.
 Jno. S. H. Fogg, M. D.
 P. M. Crane, M. D.
 Jas. J. Fales, M. D.
 Dan'l V. Folts, M. D.
 Chas. J. Putnam, M. D.
 Moses Clark, M. D.
 Abraham R. Thompson, M. D.
 Stephen Ball, M. D.
 A. D. W. Martin, M. D.

"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, M. D.
 Benjamin D. Bartlett, M. D.
 J. E. Stevens, M. D.
 George Baker, M. D.
 Wm. G. Wheeler, M. D.

Charles Chase, M. D.
 A. B. Snow, M. D.
 Herman B. Inches, M. D.
 C. D. Cleaveland, M. D.
 S. R. Philbrick, M. D.

Joseph C. Sanborne, M. D.
 Henry Lyon, M. D.
 Edwin Adams, M. D.
 E. W. Gleason, M. D.
 Jno. C. Dalton, M. D.
 Henry A. Barrett, M. D.
 Josiah Bartlett, M. D.
 J. S. Calef, M. D.
 Andrew Alexander, M. D.
 Jonathan Ware, M. D.
 James A. Merrill, M. D.
 Charles F. Hoffendahl, M. D.
 T. J. Parker, M. D.
 Anson Hooker, M. D.
 Benjamin Seabury, M. D.
 A. L. Weymouth, M. D.
 Alexander Poole, M. D.

William Ingalls, M. D., *Physician
 and Surgeon U. S. Marine Hos-
 pital, Chelsea, Mass.*
 B. P. F. Randall, M. D.
 G. C. Shattuck, Jr., *one of the
 Physicians of the Massachu-
 setts General Hospital.*
 Henry G. Clark, M. D., *one of the
 Surgeons of the Massachusetts
 General Hospital.*
 E. A. S. Nichols, M. D.
 J. S. Nichols, M. D.
 Timothy R. Nute, M. D.
 H. D. Train, M. D.
 Charles F. Foster, M. D.
 A. B. Malcolm, M. D."

As a suitable accompaniment to the preceding remonstrances, the under-
 signed 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 concurrent 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 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.

"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 its earliest announcement, had always had that the
 credit of the discovery is due entirely to Dr. Jackson, and that the part
 which Mr. Morton, Dr. Hayward, Dr. Bigelow, junior, and the rest of the
 early experimenters played, consisted solely in pursuing the course which he
 had marked out and tested. I further stated, that if it had not been for Dr.
 Jackson, this great discovery, in my opinion, would be among the things that
 are yet unheard of. I also stated, that 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. J., if con-
 scious of such a mighty discovery, did not at once make a great *bruit* about it,
 — was perfectly explained in the minds of all of us, who intimately knew him
 and his modes of thinking and acting; we feel that what he did was pre-
 cisely what *a 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 analo-

gous to his course of action in relation to certain valuable discoveries of his, in his geological surveys of Maine and New Hampshire. I concluded by saying that opinions,—I might have said, if based on a vast number of little and almost incommunicable circumstances,—are of value only as connected with the sources from which they are derived; and I referred him as to the value of any judgment originating from me, to the Massachusetts 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.

"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. Jackson. He is not without his peculiarities of manner and eccentricities of views, but for sterling truthfulness and integrity of character, no man, on my list of acquaintances, stands higher.

"L. V. B."

Such are the testimonials from the "vicinage" in relation to Dr. Jackson's rights to this discovery. No less decided and united 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 Legion of Honor; and a gold medal, struck expressly for this purpose, 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 claims of 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 anaesthesia, 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 1560 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. 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."

"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."

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."*

Mr. Morton has produced an impression in his favor, by the 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

* 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 anaesthesia; 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.

† 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

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 Congress. In this book are two engravings, purporting to be fac-similes 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, 17th May, 1852.

"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 2500 francs to you for the *discovery of etherization*,

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 2500 francs to *M. Jackson*, for his observations and his experiments on the anæsthetic effects produced by the inhalation of ether; and another of 2500 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 etherization.

and it has decreed a prize of 2500 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 2500 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 about 2200 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 2200 francs, instead of 2500 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.

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.

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.

EDW. STANLY.

The undersigned, a member of the select committee upon etherization, who was appointed in consequence of the 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.

ALEXANDER EVANS.

