37TH CONGRESS, 3d Session. SENATE.

V.S. Congress.

{ Rер. Сом. No. 89.

## IN THE SENATE OF THE UNITED STATES.

FEBRUARY 14, 1863.—Ordered to be printed.

Mr. WILSON, from the Committee on Military Affairs and the Militia, submitted the following

## REPORT.

The Committee on Military Affairs and the Militia, to whom was referred the petition of Dr. William T. G. Morton, asking compensation for the discovery and gift to his country and mankind of the application of ethereal vapor as a safe and practical anæsthesia, or pain-subduing agent, have had the same under consideration, and report:

That at the time of the alleged discovery, in 1846, and for a long and indefinite period prior thereto, means had been sought, and sometimes with success, to relieve and even to destroy pain in surgical operations. For this purpose opium, Indian hemp, mesmerism, and nitrous-oxide gas and alcohol were used, and all in their turn abandoned, except that opium, in many cases, and mesmerism in a few, still continued to be used with partial and imperfect success. But at that time there was not any safe and certain means of producing *anæsthesis* known to and used by the medical profession.

That in the years 1844, 1845, and 1846, the petitioner was extensively engaged in the practice of dentistry in the city of Boston; that he was at the same time a student in the medical college of that city, and attendant on the clinical lectures in the general hospital. and obtained his degree at the Washington University, Maryland. In his private practice and at the hospital he witnessed much human suffering, and in the clinical lectures the means of relieving it were considered and discussed, and Dr. Morton assisted in testing the efficacy of such as were tried in the medical class of which he was a member. Thus the status of science on that subject became well known to himas well what it had accomplished as what it lacked. Everything, indeed, had been abandoned by the learned professors, and surgeons in. that hospital, except the use of opium in few specific cases. It wasdeemed probable that there was something in nature which would produce certain, safe, and perfect anæsthesis, but it was also certain that it had not yet been discovered. The petitioner was thus led to investigation and experiment. The effect of ether when applied to the part, in relieving the pain of an aching tooth to which he applied it in 1844.

with a knowledge of the use of its vapor in college experiments, suggested the idea to him that the vapor of ether might furnish the muchdesired and long-sought preventive of pain. Accordingly, during the summer of 1844, he tried experiments on animals, and continued the investigation until he succeeded, in rendering himself entirely unconscious by an experiment on himself in 1846, and became satisfied that it might be used with safety. He endeavored to prevail on his students to submit to the experiments, but they having heard accounts of occasional fatal effects in college experiments, refused to inhale it to the extent he desired. Chance at length threw in his way the means of *trying* and standing by and *witnessing* its effects on a human being, who was undisturbed by any preconceived opinions, whether hopes or fears.

On the 30th of September, 1846, a strong, robust man came into his office and asked to have a tooth extracted, and as he was unwilling to suffer pain, desired to be mesmerized. He was told that there was a better preventive, and he consented to have it applied. Doctor Morton administered the vapor of sulphuric ether, and the tooth was extracted without any expression, and, as the patient declared, without any sensation, of pain, and without any injurious consequence. Doctor Morton made numerous other successful experiments, which satisfied him of its safety and efficacy. It was almost immediately introduced into the medical hospital, at Doctor Morton's request, where, with a short interruption within the first month, it has been since constantly used with entire success. Having verified his discovery, he applied for and obtained a patent under the great seal of the United States. This was determined on as the best means of publicly verifying his right to the discovery, and of keeping this new and mysterious agent out of unskillful hands; but, in order to extend its benefits to the utmost limits of safety, he at once gave free permission of its use to all public institutions which Dr. Warren, senior surgeon of the medical hospital of Boston, saw fit to name. He also invited all reliable members of the medical faculty to receive instructions and join in testing its value. All of those who now contest his right knew of his intended application before it was made, and, so knowing, approved it. The specification, which the granting words of the patent cover, declares a preference for "the vapor of sulphuric ether to those of muriatic or other kinds of ether," but adds that "any such may be employed which will properly produce the state of insensibility, without any injurious consequences to the patient." This, of course, includes chloric ether, or chloric ether concentrated into chloroform. The sulphuric ether was preferred, because it is equally efficient and much more safe than chloric ether or chloroform.

This patent, in the opinion of your committee, ought to put forever at rest, between the United States and the petitioner, and between all who knew and approved of the application for the patent and the petitioner, all question as to the right of discovery of the thing patented. But, independently of this, there is ample evidence in the papers accompanying this report that the petitioner was the first and original discoverer of the vapor of ether as a safe and practical anæsthetic agent.

It is further shown, by evidence satisfactory to your committee, that the discovery was a source and cause not of profit or emolument to Doctor Morton, but of labor, anxiety, and heavy and ruinous expense and loss. The anæsthetic agent was assailed. It was represented as ruinous to the human constitution, and often fatal to life. The public were warned against its use, and Dr. Morton devoted years of his life, his patrimony, all the earnings of his past life, and all his credit, to put down and disabuse the public of the falsehood thus industriously circulated to its prejudice. He and a few generous friends who came to his aid alone strove with the tide which set so strongly against the discovery. Neither of those who now contest his right lifted a finger to aid, until he finally prevailed, but assailed it. The vapor of ether as an anæsthetic agent was acknowledged, and received and used throughout the civilized world. It was used in all the hospitals of the United States, and by all the surgeons in the army and navy of the United States. Thus the Executive of the United States seized and used this discovery without license or reward, and regardless of its own patent-an example which the multitude readily followed, though the patent had kept the discovery out of the hands of quacks until it had been fully and fairly tested. But this brought no relief to the discoverer; and every quack and pretender, wheresoever they practiced, following the example of the United States authorities, used the pain-destroying agent, without regard to the rights of the patentee. Dr. Morton then determined to apply to his country for compensation and redress.

From 1849 to 1854, inclusive, two reports were made by committees of the House, affirming the right of Dr. Morton, and recommending compensation. They are elaborate and carefully considered reports, founded upon a great mass of testimony, taken as well by Dr. Morton to support his claim as by the several contestants to destroy it; and after carefully considering and weighing the testimony and the acts of the several parties at the time of the discovery, and immediately subsequent thereto, they reported in favor of his claim, and recommended compensation; and they reported bills, which were buried and lost in the mass of unfinished business.

Two committees of the Senate—the Committees on Military and Naval Affairs—concurred in the reports of the committee of the House. A bill granting relief generally to the discoverer passed the Senate in 1853, and again in 1854. One of these shared the fate of the House bills—buried like them in the mass of unfinished business. The other was rejected in the confusion of a midnight session.

Worn out, and hopeless of the action of Congress, Doctor Morton memorialized the President of the United States, praying him to give compensation for the use of the ancesthesia, the patented article, or to cease to use it in the army and navy. The President received the application, and was about to order a just and liberal compensation, when the Secretary of War, Jefferson Davis, induced him to require, as a pre-requisite, a suit in one of the federal courts, and a judgment then against an army or navy surgeon for using it. Doctor Morton brought suit, recovered judgment against a surgeon of a marine hospital, and in due time, but after a change of administration, produced the record of the judgment, presented it to Howell Cobb, then head 158n

of the Treasury Department, to which the hospital belonged, who hesitated for a time, and at last refused, to carry out the order of the President. So the Executive refused compensation, and continued to use the discovery, as theretofore. This memorial to the President was backed by the signatures of a majority of the members of each house of Congress. In the meantime the patent was drawing to a close, and Dr. Morton determined to apply for an extension, under the hope that Congress or the Executive would yet be induced to recognize and respect his rights under it at some time within and during the extended term, but the extension was denied him because of some technial formality with which he could not comply. Your committee, however, consider his claim as valid against the United States, in equity and good conscience, as it would have been if no such difficulty had been interposed, and the patent had been extended according to usual practice of the office in ordinary cases.

Congress having done nothing, the right of Dr. Morton to the discovery was examined, and, after most careful investigation, vouched by the medical and surgical faculties of Boston, New York, and Philadelphia, the *elite* of the profession joined in attestation of the great merits of the discovery; and they express an unqualified judgment that Dr. Morton is entitled to the credit of the discovery, and of perfecting and giving it to the world. And as evidence that this is not mere words of compliment, they vouched their opinion by a generous effort to procure subscriptions to relieve the embarrassment in which Dr. Morton was involved by his devoted self-sacrifice.

The examination of this question, and the consequent judgment and subscription, originated with the medical faculty of Boston; and as they had all the means derived from a knowledge of parties, of witnesses, and the acts of parties during the doubtful period of the discovery, when no man could tell whether it was or was not of value, their decision may be properly considered as the verdict of a highly intelligent jury of the vicinage, and as such, your committee give it great weight. And its value is enhanced by the fact that the faculties of New York and Philadelphia, on a re-examination of the question, concurred in this judgment. The Institute of France awarded to Dr. Morton their largest gold medal. This would seem conclusive, even if it were not, as your committee think it is, fully sustained by independent proof.

But the subscriptions procured by medical and surgical faculties, liberal though they were, fall far short of a sum sufficient to idemnify Dr. Morton for his expenditures of time and money in pursuit of the discovery, and in giving it to the public under conditions which would command public confidence. Nor is it just that this single profession should take upon itself, by its extraordinary efforts, the burden of rewarding and sustaining a discovery by which the nation has been, and is now especially, so largely benefitted. Who shall estimate its value to the army and navy of the United States? For what sum would the government now consent for a single year, or even after a single battle, to forego its use? It is in proof before us that Doctor Morton himself administered his *nepenthe* to more than a hundred wounded soldiers fresh from the battle-field of Fredericksburg, and with three minutes to the man, and without a single failure, prepared them all for a painless operation with the probe and the knife. His *nepenthe* is used in all operations in the army and navy, and we are safe in saying that no sum which could be named would induce the United States to forego its use.

It was used for fourteen years, as far back as the Mexican war, and down to the expiration of the patent. To his legal right to indemnity and compensation for this, no one who regards the mandates and prohibitions of the Constitution can doubt. The legal liability of the United States for this has been judicially determined in the suit above referred to. This is independent of all consideration of merit in the discovery. It is a legal right; it is property; and it is all the property the petitioner has left to him. It has been taken by the United States, and it has been applied to public use. It is debt due Dr. Morton, and long withheld. He is, also, in the opinion of your committee, entitled equally to compensation for its use to the present time, and, hereafter, down to the expiration of an extended patent, according to ordinary law and the usage of the department; and he is entitled, not in strict law or, perhaps, in legal equity, but in sound political morality, to liberal consideration for the priceless service which he has rendered to his country and its people in every condition of life. . We are satisfied that Dr. Morton is the discoverer. We think him entitled to liberal compensation and reward, in accordance with the usages of this and other governments in such cases.

The only question as to this claim is the amount. A bill twice passed the Senate appropriating a hundred thousand dollars to the discoverer. Former committees and heads of departments, at a time when there was not a tithe of the evidence that the use of the discovery by the United States now furnishes of its value to the government, reported in favor of and recommended appropriating one hundred thousand dollars to enable the President of the United States to procure the surrender of Dr. Morton's patent.

The medical faculty say "its value is such that, if it were only to be purchased with large sums of money, millions of dollars would readily and properly be paid by persons who are subjects of the pain the discovery is competent to avert or relieve;" and "that Dr. Morton ough to have a monument of gold as high as Trinity Church steeple.' Though it may be utterly impossible to determine the proper bounds within which merit is to be rewarded in a case like the present, in which an humble individual is the donor and the whole nation the recipient, we can appropriate a sum of money which will reimburse and indemnify him for expenses and sacrifices in bestowing this boon, and place his future life beyond the reach of poverty, and in this manner do justice to ourselves.

An account stated, supported by satisfactory evidence, shows that Dr. Morton has expended in money, and time, and sacrifice of professional business, more than two hundred thousand dollars in discovering, defending the discovery and his rights thereto, and perfecting and giving the nation this pain-destroying agent.

Your committee are of the opinion that some compensation is due, but they report these facts for the information of the Senate, without any recommendation. Your committee herewith report, as an appendix, a narrative of the discovery, and Dr. Morton's connexion with it.—(Appendix A.)

An analysis of the testimony of contestants for the honor of the discovery.—(Appendix B.)

Extracts from the reasoned report of the committee of the House of Representatives of 1849; and extracts, with notes appended, from the agreed report of 1852, signed by a majority of the members, and certified by the then clerk of the House of Representatives, but not presented for the want of opportunity.—(Appendix C.)

Also extracts from a large mass of evidence on which all the reports are mainly founded;—the acts and proceedings of the medical and surgical associations of Boston, New York, and Philadelphia, referred to above;—an account stated, with proof of its approximate correctness, showing the expenditures in time and money of Dr. Morton in making and giving to the public his discovery;—reports from the Secretaries of War and of the Navy, the surgical bureaux, the surgeons of the army and navy, and members of the medical profession, showing the extent to which the *nepenthe* is used, and the estimation in which it is held, and recommending compensation;—and a summing-up of the abstract question of discovery. As the appendix is voluminous, they have directed that an index bo prepared and appended to facilitate its examination.

## SURGEON GENERAL'S OFFICE,

## Washington City, D. C., February 24, 1863.

SIR: I have the honor to acknowledge the receipt of your communication of this date, asking my views relative to compensation to be paid Dr. W. T. G. Morton for the advantages which the Government has received from the use of anæsthetics in the army and navy, and for the benefits which will in future be derived from it.

army and navy, and for the benefits which will in future be derived from it. I think there would be manifest propriety in giving Dr. Morton a substantial reward for the great discovery made by him—a discovery which has been of incalculable benefit to the sick and wounded of the army and navy. It may be safely asserted that in 99 per cent. of the operations performed in our military hospitals and on the field of battle anæsthetics are used.

I am clearly of the opinion that the sum of two hundred thousand dollars would be little enough to bestow on Dr. Morton for the advantages which have accrued and will accrue in future to the Government through the use of the means, which he was the first to discover, of alleviating human suffering. It gives me great pleasure to state that immediately after the battle of Fredericksburg, Dr. Morton administered ether several times, at Falmouth, with the greatest skill and efficiency to patients upon whom I was operating,

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

W. A. HAMMOND,

Surgeon General.

HON. HENRY WILSON, Chairman Military Committee, U. S. Senate,

Washington, D. C.



