

Abel Lawrence Peirson: Early Proponent of Etherization

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As time passes by, the controversy and rancor abate over who should be given credit for the initial use of anesthesia during a surgical operation. Nevertheless, there is no disputing the fact that the first public demonstration of ether anesthesia was the accomplishment of William Thomas Green Morton in Boston, October 16, 1846. Minor disagreements concerning those observers presumed to be present on that occasion also seem to have been resolved.^{1,2} In that respect, Abel Lawrence Peirson (fig. 1) of Salem, Massachusetts, was at one time considered to be a key figure as his official biography incorrectly places him in the surgical amphitheater at the time.³ This was a logical assumption since Peirson, a graduate of Harvard Medical School, was then a Surgical Consultant to the Massachusetts General Hospital.

An opportunity to peruse a letter book left by Peirson evoked the possibility of discovering both new and further authentic information regarding the ether demonstration. The letter book was a gift to the Boston Medical Library from Mrs. Lot M. Hamlin, sometime after 1901. Probably this compilation of letters was previously owned by Dr. E. I. Peirson, Abel's grandson. The collection, which embraces the years 1829-1852, is a sturdily bound assemblage of clearly legible, painstakingly hand-written copies of Peirson's correspondence, at a time when carbon paper, the typewriter, or even an amanuensis might not have been available. In the collection, a number of causes are espoused that testify to the caliber of the man: legalization of anatomic dissection and the indispensability for physicians of a reasonable knowledge of practical anatomy; the need to furnish a library on practical medicine for the Fellows of the Massachusetts Medical Society; a plea for the establishment of a public burial ground in Salem; and more than mere skepticism over the theory of mesmerism. In addition, one finds autopsy reports, letters to patients and to referring physicians and consultants, plus descriptions of a variety of medical syndromes and their treatment. Each of the letters is distinguished by a descriptive heading. Disappointingly, in the fall of 1846, no mention

is made of the ether demonstration; however, a revealing item does strike the eye under the leader, *Dr. Morton's Anodyne Compound*, as addressed to William Thomas Green Morton:

Salem Nov. 22. '46.

Dear Sir:

I have twice successfully applied yr. valuable discovery to the purpose of destroying pain in surgical operations. The first case occurred on Thursday Nt upon a young Irish girl whose left arm I amputated for a comminuted fracture of the left elbow. The operation was by lamplight, and of course consumed a little more time in taking up the arteries. She was quite noisy before the operation in her expression of pain, and after she was dressed and placed in bed was in vehement grief in recounting her helplessness, and the poverty of her mother and family in Ireland, but during the operation was perfectly silent, non-resistant, & assured me she had no pain but that she had got a reaping hook in her arm, and she heard a noise like sawing wood. Dr. Fisk with his accustomed kindness went with me (a ride of six miles in the dark and rain) & administered the vapor, so that she took it 4 or 5 times & always with effect.

The second case was of a young man whose ankle was crushed in the same way by a rail car. I amputated the leg yesterday at 3 o'clock just below the knee. He is an intelligent fellow, and is quite delighted with its effect in his case. He says he felt no pain, tho' he was conscious of what was going on, and obeyed Dr. Fisk's directions—who again kindly attended to the dispensation of the compound. I left him 'till 9 o'clk before I dressed the stump & he says the pain of a few sutures far exceeded that of the operation.

I have tho't it important to establish confidence in the uniformity of the effect of your discovery, & therefore have sent you these particulars, adding only my grateful acknowledgements for the benefit your discovery has conferred on suffering humanity, and ardently desiring that it may be properly appreciated by the profession, & yourself and Dr. Jackson reap a satisfactory reward for your labors.

Yrs with much respect
A. L. Peirson

These two cases (also a third) were subsequently reported to the Boston Medical and Surgical Journal⁴ with further details that need not be recounted here.

Peirson's honesty and conscientiousness are illustrated by another communication to the Boston Medical and Surgical Journal⁵ as follows:

SEQUEL TO DR. PEIRSON'S OPERATIONS.

To the Editor of the Boston Medical and Surgical Journal

Dear Sir,—The operations detailed in your Journal of Dec. 2, as performed under the effects of Dr. Morton's anodyne vapor, were stated to have been attended with no symptoms worthy of note up to the date of my communication. In the course of that week each of the wounds became sloughy, and a small piece of the skin

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FIG. 1. Reproduction of an oil on canvas portrait of Abel Lawrence Peirson posthumously, by Charles Osgood of Salem, 1853. Reproduced through the courtesy of the Boston Medical Library, in the Francis A. Countway Library of Medicine. According to R. J. Wolfe this painting was commissioned by the Railroad Company as a gesture to the bereaved Peirson family, in expiation for the accident that resulted in Peirson's death.

of the flap was lost, in the second case, over the end of the fibula. The wounds soon cleaned off, and no consequences of importance followed, and I should not have thought it necessary to trouble you with a communication on the subject, but for a conscientious desire that all the facts in regard to this important discovery may be announced. As far as I am able to form an opinion, I attribute none of these consequences to the vapor, but believe them to have been accidentally coincident, and not to be expected more than in operations under other circumstances. The healing of the wounds is at present going on in the most perfect manner. In my last communication a blunder in the manuscript made me say "superior fossa of the clavicle," which every medical reader will see, means "scapula."

Yours with much regard,
A. L. Peirson.

Salem, Dec. 7, 1846.

Peirson would later aver that these were the second and third amputations ever performed under the use of ether.⁶ Apparently, the first was the celebrated amputation of the leg of 20-yr-old Alice Mohan on the 6th of November, 1846 at the Massachusetts General Hospital.⁷ The surgeons at the Massachusetts General Hospital, Drs. George Hayward and John Collins Warren, were at

first reluctant to proceed as the exact nature of the patented Letheon had not been made known to them although they knew full well that it was sulfuric ether. However, with the permission of Morton the amputation was done by Hayward, Morton the anesthetizer. Solomon D. Townsend, M.D.,⁷ consultant to the hospital, who according to his own testimony was present at the first demonstration, claimed that this was the first capital operation that had ever been performed under ether. Simultaneously, on that same day, Warren resected the lower jaw of another patient.

It is important to know that in November and December of 1846, a number of etherizations were accomplished privately outside of the hospital at hotels or other facilities in town, but the records not available.

In the letter book, on August 31, 1847, beneath the heading *Sulphuric Ether*, Peirson wrote to Captain Stephen Hoyt apparently on duty with the U.S. Army in Mexico. Captain Hoyt bade his wife to join him and wondered if the ether could safely relieve her neuralgic pains usually made worse by travel. Peirson assured him that his spouse

could safely be given the anesthetic and also expressed the hope that ether might be employed in the Army.

"I am not informed how far it has been used in Mexico but it would seem most likely to be underrated as a new remedy when it is admitted that new medicines are often *humbug*. This is none, but in my view, the greatest discovery in our profession since vaccination."

There follows a similar plea in a letter addressed to General Caleb Cushing, August 31, '47. Peirson could not have known that the first ether anesthetic given during combat in Mexico occurred in late March or early April of 1847.⁸

Because of his evident enthusiasm and advocacy of etherization, it was natural that Peirson should be invited to support Morton's claim for pecuniary award from the government in Washington. In the letter book, Peirson's letter so intentioned is addressed to the Hon. David P. King, M.C., on January 1, 1849. However, a more complete statement is addressed to the Hon. M. H. Bissell, on January 17, '52, the third from the last item in the letter book. Excerpts from Peirson's exhaustive reply to Bissell are of more than passing interest.

"In reply to the circular I had the honor to receive from you, I beg leave to state.

1. That I have no connection with any institution, but believe that an amputation of the arm on the 19th of November and an amputation of the leg on the 21st of November 1846, done by me were the 2nd and 3rd amputations ever performed under the use of ether.

4. Most educated practitioners in my neighborhood use these agents and approve them, but the enthusiastic admirers of them are generally those who practice surgery and perform surgical operations. *On the fifth of August 1847, I administered ether in a case of parturition, this being the first case in which it was tried in this country, and since that time it has been very generally employed by those most generally engaged in the practice of midwifery.*"

Peirson seems to imply that he knew of British obstetrician James Y. Simpson's earlier use of ether for a woman in labor, on January 19, 1847.⁹ However, he seemed unaware that Nathan Cooley Keep, dentist, is credited with the first use in the U.S. of ether for obstetrics on April 7⁹ and that almost at the same time Walter Channing, Harvard Professor of Midwifery and Jurisprudence, began to use ether in his practice.⁹ Keep's etherization was for the unattended delivery of Fanny Longfellow, wife of Henry Wadsworth Longfellow.¹⁰ It seems odd that Peirson would know of Nathan Cooley Keep's article on the Inhalation of Ethereal Vapor¹¹ but would be unaware of Keep's report of the delivery in the very next issue of that journal.¹² Further, Frances Long Taylor, daughter of Crawford Williamson Long, states in her biography of him,¹³ "My father began the administration of ether in his obstetrical work a few years after his discovery. According to the testimony of my mother he administered

it to her at the birth of one of her children about 1847, which was probably his first use of ether in obstetrics."

To cap this account of Peirson's adventures in etherization, several items of note appeared in *Statements Supported by Evidence of WM. T. G. Morton, M.D. on the Claim to the Discovery of the Anaesthetic Properties of Ether*.⁷ This volume currently in the archives of the Boston Medical Library was a present in June 1880 to Thomas Morrels Esq. from Mrs. W. T. G. Morton, widow of the discoverer of the anesthetic powers of ether. In turn, this was presented by Mrs. Morrels to Lesley M. S. Farmer in gratitude for professional services rendered in the spring of 1911. This opus is an authentic rendering of events surrounding the "discovery", being a compilation of sworn testimony and cross-examination of witnesses for and against Morton's claim. On page 456, Peirson testified that he had been a consulting surgeon at the Massachusetts General Hospital for 10 yr, but not at the time. In regard to the "discovery" he stated:

"I first learned of it through the newspapers; I think through a notice that a dentist in Boston had discovered an agent which prevented pain, in the extraction of teeth—either an item or a puffing notice. I afterwards waited upon Dr. Morton, with whom I had no acquaintance in order to see him, if possible, extract a tooth without pain. No opportunity for the experiment occurred. Dr. Morton, when I called upon him, received me very politely. Dr. Morton gave me permission to use it as much as I pleased, furnished me with a two-quart bottle of Letheon, as the ether was then called, a globe to contain the sponge saturated with the ether, and a suitable mouth-piece to respire it, and instructed me generally about the mode of using it: for all of which I paid him ten dollars. I occasionally applied to Dr. Morton for information on practical points, which he cheerfully gave. I afterwards induced Dr. Fisk, one of our prominent dentists, to purchase of Dr. Morton the right to use it."

"I was greatly excited on the subject of an agent which would take away pain in surgical operations. It often deprived me of sleep. It had been the great desideratum of my professional life, and I saw that, if it turned out true, it would totally alter the whole current of my practice: so that my visits to Boston on this subject were very frequent, costing me in a year more for passages to Boston than a season ticket."

According to his biography,³ Peirson was for many years the leading surgeon of Essex County, Massachusetts, and the first to publish a report "of surgical operations performed with the aid of ether anesthesia—the new gas—outside the Massachusetts General Hospital." Unfortunately, while returning from a meeting of the American Medical Association, he died prematurely at the age of 59, killed in a railway wreck at Norwalk, Connecticut, May 6, 1853.

In a sincere and professional manner, Abel Lawrence Peirson may have done at least as much clinically to advance the employment of ether anesthesia in surgical operations as any of the other figures concerned with the subsequent use of it.

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References

1. Viets HR: Hinckley's Who was Who on Ether Day. Exhibit at the Boston Medical Library. May 22–24, 1962
2. Vandam LD: Robert Hinckley's "The first operation with ether." *ANESTHESIOLOGY* 52:62–70, 1980
3. Kelly HA, Burrage WL: American Medical Biographies. Baltimore, Norman Remington, 1920, pp 902–903
4. Peirson AL: Surgical operations with the aid of a "new Gas." *Bost Med Surg J* 35:362–364, 1846
5. Peirson AL: Sequel to Dr. Peirson's operations. *Bost Med Surg J* 35:410, 1846
6. The Letter Book. Ether—Dr. Morton's petition to Congress. To hon. W. H. Bissell, Chairman M.C., January 17, 1852
7. Statements supported by Evidence of Wm. T. G. Morton, M.D. on the Claim to the Discovery of the Anaesthetic Properties of Ether. Honorable the Select Committee appointed by the Senate of the United States Congress 22d Session, January, 21, 1853. Washington 1853. Testimony of Solomon D. Townsend, M.D. December 18, 1852: 355 et seq
8. Aldrete JA, Marron GM, Wright AJ: The first administration of anesthesia in military surgery: On occasion of the Mexican-American war. *ANESTHESIOLOGY* 61:585–588, 1984
9. Heaton CE: The history of anesthesia and analgesia in obstetrics. *J Hist Med* 1:567–572, 1946
10. Pittinger CB: The anesthetization of Fanny Longfellow for childbirth on April 7, 1847. *Anesth Analg* 66:368–369, 1987
11. Keep NC: Inhalation of ethereal vapor for mitigating human suffering in surgical operations and acute diseases. *Bost Med Surg J* 36:199–201, 1847
12. Keep NC: The Letheon administered in a case of labor. *Bost Med Surg J* 36:226, 1847
13. Taylor FL: Crawford W. Long and the Discovery of Ether Anesthesia. New York, P.B. Hoeber, 1928, pp 81–82