

HORACE WELLS

DENTIST

FATHER OF SURGICAL ANESTHESIA



PROCEEDINGS OF
CENTENARY COMMEMORATIONS
OF WELLS' DISCOVERY IN 1844



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PROCEEDINGS OF
CENTENARY COMMEMORATIONS

OF WELLS' DISCOVERY IN 1844

AND

LISTS OF WELLS MEMORABILIA

BIBLIOGRAPHIES, MEMORIALS AND TESTIMONIALS



COMPILED, BY THE EDITOR,
FOR THE
HORACE WELLS CENTENARY COMMITTEE
OF THE
AMERICAN DENTAL ASSOCIATION

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PREFACE

THE centenary celebrations portrayed in this volume were collectively the culmination of a movement that had been initiated by the Horace Wells Club of Hartford, Connecticut. At the annual meeting of the Club, on December 11, 1936, its President—by a motion made by Frederic T. Murlless, Jr., D.D.S., and adopted unanimously—was authorized to appoint an "Historical and Centenary Committee" of seven members, whose assigned duties included endeavors to promote celebration of the centenary of the discovery of anesthesia by Horace Wells in 1844. At the annual meeting of the Club, on December 11, 1940, the Committee appointed in 1936 was superseded by a "Ways and Means Committee" of ten members, to continue and to expand the work of the former committee. The ensuing deliberations led, in 1941, to the appointment of cooperative committees of the Hartford Dental Society and the Connecticut State Dental Association.

Early stages in the further evolution of plans for the projected centennial commemoration are indicated by the following quotation from an official report on the "Horace Wells Centenary celebration," on pages 412-16 in the issue of the *Journal of the American Dental Association* for March, 1944:

At the American Dental Association convention in Houston, Texas . . . [October 27-31], 1941, Henry Hicks [a member of the Horace Wells Club], at that time president of the Connecticut State Dental Association, and now Trustee from the First District of the American Dental Association, presented [to the History Committee] the following resolution, sponsored by the Connecticut State Dental Association, the Hartford Dental Society and the Horace Wells Club:

"WHEREAS, the discovery and recognition of the principles of anaesthesia occurred at Hartford, Connecticut, on December 11, 1844; and

"WHEREAS, this great gift to humanity was made possible by the vision, experiments and sacrifices of Dr. Horace Wells, a practicing dentist of that city; and

"WHEREAS, the centenary of that discovery is only three years away; therefore, be it

"RESOLVED, that the dental profession of the United States be requested to join in a centennial celebration to be held in Hartford, Connecticut, in the fall of 1944; and be it further

"RESOLVED, that the Connecticut State Dental Association, the Hartford Dental Society and the Horace Wells Club join in asking the American Dental Association to be the official head of the celebration, to appoint a committee to cooperate with the local committee, and to aid in its financing."

This resolution was submitted [originally] to the History Committee, with the result that the following resolution was read to the House of Delegates, October 27, 1941:

"WHEREAS, the Centennial of the discovery of anesthesia occurs in 1944; and

"WHEREAS, this is a matter of great importance in the history of our profession and that of medicine; be it

"RESOLVED, that this committee request that the American Dental Association take cognizance of this event and support measures for proper observance. In furtherance of this objective, the History Committee heartily approves the accompanying resolution from the Connecticut State Dental Association, the Hartford Dental Society and the Horace Wells Club.

"History Committee: B. W. Weinberger, N.Y., Chairman."

This resolution was referred to the Reference Committee on Dental Education, which in turn brought in the following report [October 30, 1941]:

"Since making our report of yesterday, a resolution presented on Monday by the History Committee has been referred to this [Reference] committee.

"For the House to adopt the resolution referred to would, in effect, acquiesce to the requests of the:

"1. Connecticut State Dental Association

"2. The Hartford Dental Society

"3. The Horace Wells Club

"To: (a) Become the official sponsor

(b) Collaborate with the named organizations

(c) Appoint a committee

(d) Aid in financing a centennial celebration to be held at Hartford in the fall of 1944 in commemoration of the well known work of Horace Wells, dentist.

"The Reference Committee believes that American Dentistry should and will do this. We recommend that the resolution be adopted, but that action relating to "aid in its financing" be referred to the Board of Trustees.

"Reference Committee: Hardy F. Pool, Leo W. Kremer, Ernest G. Sloman, Chairman."

The report was accepted by a unanimous vote of the House of Delegates.

The Committee appointed by the President of the American Dental Association, pursuant to the authorization voted by the House of Delegates as indicated above—to proceed with the development of plans for the Wells Centenary celebration—was officially designated the Horace Wells Centenary Committee, the membership of which is listed on page *v* of this volume. At the annual meeting of the Association in 1943, the Trustees voted a generous grant of funds for the effective support of the Committee's plans for the proposed Wells commemoration.

Shortly after the Association's Horace Wells Centenary Committee began its deliberations early in 1942, under the effective leadership of Chairman Eugene M. Clifford, D.D.S., the problem of the nature and scope of the projected centenary celebration required early solution. At the beginning of the Committee's deliberations there was a natural preference for a general meeting of representatives of many nations, to be held in Hartford, Connecticut, where Wells' historic discovery was made, to include memorial sessions and scientific discussions of various aspects of anesthesia and of the relation of anesthesia to the evolution of surgery—a program of outstanding historic significance, to continue for

several days. But the many uncertainties, restrictions and adverse influences of World War conditions prohibited such a comprehensive meeting. Therefore, instead of *concentration* in the plan for a centennial commemoration, the Committee proposed a procedure at the opposite extreme—*dispersion* into many regional celebrations, each to be conducted in the spirit of a great central meeting but limited to local facilities, and thus individually subject to relatively less interference by prevailing war conditions; an abbreviated meeting in Hartford to be the *spiritual focus* of the whole group of centenary celebrations. The plan thus conceived was effectually developed, as may be seen in the records in this volume. Fortunately, the ensuing numerous regional meetings, the exceptionally large number of active participants, and the attendant publicity in many centers, disseminated information regarding Horace Wells and his immortal public service more widely and usefully than an elaborate general meeting could have assured, thus attaining the primary objectives: to commemorate the centenary of the discovery of general surgical anesthesia; also to honor and to make better known—to the health-service professions and to the public—the life, work and public benefaction of one of the pioneers in the development of dentistry.

In accordance with the decision to initiate regional and other local celebrations—to conform with the restrictive influences of war conditions and yet to promote widespread interest and participation—the Horace Wells Centenary Committee furthered its general plan by seeking the cooperation of many organizations and obtaining the help of numerous individuals in special relationships; and, in turn, by responding to requests for information or advisory assistance. To illustrate this reciprocal cooperation: At the Committee's suggestion, each state dental society appointed a Horace Wells centenary committee to make arrangements, on its own plans, for a celebration of the Wells Centenary at the annual meeting of the society in 1944 or otherwise, and also at meetings of district societies in the state. To meet prospective requests for help, from these state committees and from other committees and groups that might develop centenary commemorations, typewritten or printed forms of several authoritative presentations regarding Horace Wells and his achievements—additional to those commonly available, and which collectively presented briefly and directly the essentials in Wells memorabilia—were obtained in ample quantities and responsively distributed. In the preparation of these very helpful aids, and in the development of various other valuable procedures to promote professional and lay publicity relating to the centennial celebrations, the Committee was favored by the scholarly assistance of Prof. Irwin A. Buell, M.A., Ph.D., of Trinity College, Hartford, Conn.

Among the "numerous individuals" who cooperated in "special relationships" with the Horace Wells Centenary Committee, as is indicated above, was Daniel F. Lynch, D.D.S., Washington, D.C., Chairman of the American Dental Association's Committee on International Relations, who was invited to assist in

promoting commemorations of the Wells Centenary in Latin America. Subsequently, data pertaining to some of the ensuing celebrations in Central and South America were sent to the Centenary Committee by Dr. Lynch. Pursuant to his initiative, the Committee also received copies of official reports and associated papers and publications, regarding Wells centennial commemorations in Latin America, from the United States Department of State, through the active personal cooperation in that Department of Mr. Harry H. Pierson and Harry R. Warfel, Ph.D., *Assistant Chiefs, Division of International Exchange of Persons*. These "reports and associated papers and publications" were collectively a portion of the material from which, at the Committee's invitation, Ralph Howard Brodsky, D.M.D., New York City, Executive-Secretary of the Pan American Odontological Association, compiled for this volume the records of Wells Centennial celebrations in Latin American countries on pages 90-123.

In this volume of summaries of events of Wells Centenary commemorations, personal data regarding Horace Wells are diffused throughout the recorded proceedings. Readers who may wish to obtain briefly detailed information about Wells, the man and dentist, will find a compact assembly of such data in the "Life and letters of Horace Wells, discoverer of anesthesia; *chronologically arranged*," by W. Harry Archer, B.S., D.D.S., Pittsburgh, Pa., in two issues of the *Journal of the American College of Dentists*: First part—Vol. 11, pages 81-210; 1944, June (errata were noted on a two-page insert at the beginning of the issue for December 1944; also on page 371 of that issue). Second part—Vol. 12, pages 85-100; 1945, June.

The many perplexities in the history of anesthesia account for the occurrence of some disagreements among the statements of facts and opinions by the many authors throughout the proceedings described in this compilation. The volume entitled "Man against pain; the epic of anesthesia" (1945), by Howard R. Raper, D.D.S., Albuquerque, N.M., is a reliable guide for the clarification of such disagreements. Dr. Raper's book is mentioned in another relation at the end of the Introduction in the present volume (page 10).

Delay in the publication of this volume has been due chiefly to the multitude of mechanical difficulties associated with the collection, verification and coordination of the records of the many Wells Centenary celebrations in the United States.

DID HORACE WELLS HAVE A MIDDLE NAME?

Occasionally, in this volume, a middle-name *initial* has been included in the name of Horace Wells—as recorded by individual authors—but there is disagreement as to which initial is authentic. Horace Wells himself seems to have refrained from using a middle name. The original Wells Family Register was recently added to the Wells Collection in the Library of the School of Dentistry of the University of Pittsburgh (page 401 of the present volume). When the

problem of Horace Wells' name (as authoritatively recorded) was stated to the Librarian, Miss Alice Martha McCann, she presented the following data from that Register:

1. Wells' name appears as follows in the Register (without a period after the initial H):

*Children's names**Births**Deaths*

Horace H

January 21, 1815

January 23, 1848

2. The Register does not indicate what the middle-name initial represents. Possibly it stands for *Hezekiah*, in honor of Wells' grandfather, Captain Hezekiah Wells; or for *Heath*, in honor of Wells' mother, a daughter in the Heath family.

The Wells Family Register, which contains the foregoing data, was deposited in this Library in November, 1946, by Mrs. Arthur Wells Cole, 25 Kennard Road, Brookline, Mass., whose husband (deceased in 1939) was a son of Horace Wells' sister, Mary. This Register is preserved in the Library "as a loan, to be available at all times to any member of the family."

The almost universal custom to refer to Wells as "Horace Wells" accords with Wells' own preference to write his name without the middle portion or initial. In the present volume, at each of the few places where a middle-name initial has been included in Wells' name, the initial remains as the author recorded it, but a related footnote refers the reader to this explanatory comment.

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INTRODUCTION

WHO DISCOVERED GENERAL SURGICAL ANESTHESIA?

IN the evolution of mankind the instinct of self-preservation has been refined to include ardent longing for relief from distress and abiding desire to prevent pain. The history of surgery, from the beginning, records many descriptions of endeavors by various means to reduce the degree of agony that was caused by surgical operations; but before the nineteenth century all efforts completely to prevent surgical pain had been unsuccessful. As late in medical history as the fourth decade of the nineteenth century, Velpeau, the eminent French surgeon, in expressing the prevailing judgment from cumulative universal experience, wrote that "to avoid pain in surgical operations is a vain hope." In the succeeding decade, however, the boon of general inhalation anesthesia—for complete prevention of pain in operative surgery—became one of the most beneficent of all discoveries.

Of those who directly or indirectly contributed to the development of general inhalation anesthesia, four men were individual claimants of the eminent distinction of being its discoverer: Charles T. Jackson (Feb. 1842) and Crawford W. Long (Mar. 1842), *physicians*; and Horace Wells (Dec. 1844) and William T. G. Morton (Oct. 1846), *dentists*. The conflicting claims of, or for, these men aroused active public disagreements throughout a prolonged period. Owing to the perplexities of the personal conditions of the discovery, the question, "Who discovered general inhalation anesthesia," has continued to be a subject of recurrent study and discussion.

In 1847 the then most recent claimant of the title of discoverer of general inhalation anesthesia (Morton) began an endeavor to obtain from the United States Congress a commensurate public financial reward. A second claimant (Jackson) promptly contested this proposal as failing to recognize his personal and direct share in the first claimant's achievement. Later, representatives of a third (deceased) claimant (Wells), and finally of a fourth (Long), presented records of earlier experiences in surgical anesthesia that increased the complexities of the expanding congressional contest. Finally in 1863, after extensive examinations by congressional committees of all available data on the discovery of general inhalation anesthesia and after consideration at several sessions of reports by these committees, the Congress was unable to decide which of the four claimants deserved the proposed honorarium and awarded it to none. The congressional inquiry thus concluded has not been reopened. Shortly afterward resolutions declaring that Wells was the discoverer were adopted by the American Dental Association (1864) and by the American Medical Association (1870).

Recorded facts that differentiate the realities in the claims of, or for, each of the four contestants named above—omitting distracting data of casual or

doubtful import and many details devoid of decisive significance—are briefly outlined below.

(1) *Crawford W. Long* (1815–1878), a physician in Jefferson, Georgia, was also the village druggist, included ether in his drugstore supplies, and knew much about the “ether frolics” (“ether drunks”) then current. In his day it was common practice to endeavor to diminish the distress of surgical operations by giving patients whiskey as an “intoxicant.” One of Long’s patients had been apprehensively postponing the projected removal of two unsightly tumors on the back of his neck. Long, who knew that this patient was “fond of and accustomed to inhale ether,” resourcefully suggested the inhalation of ether in preparation for the operation. Presumably both he and the patient believed the familiar “intoxication” with ether would be a good substitute for the customary ameliorating influence of excess of whiskey. Under these reassuring conditions the patient, on March 30, 1842, inhaled vapor of ether from a towel held by himself and, during the ensuing “intoxication,” Long conducted a painless excision of one of the two tumors. On June 6, 1842, the second tumor was removed under similar conditions, without distress for the patient “until the last cut was made” when he “felt a little pain.”

During the next few years, Long conducted painless minor surgical operations under ether “intoxication” on “one or more” patients annually. Each operation was performed privately and casually in his village community. Long proceeded in this way apparently without realization of the exceptional humanitarian potentialities of his pioneer achievement, for he did nothing to promote medical knowledge or general use of his surgical procedure with ether, until 1849—three years after the public demonstration of ether anesthesia by Morton, which is related below. It is impossible to believe—without disrespect for Long as an ethical physician—that, if he had comprehended or imagined the profound significance for humanity of his surgical experience with ether, he would have refrained from promptly making known the extraordinary public value of ether anesthesia as a preventive of the surgical agony then daily experienced throughout the world. Long’s private employments of ether in a few operations before Morton’s demonstration—all of which were unknown to the other discoverers of general anesthesia—had no influence on, or share in, the initiation or development of inhalation anesthesia as a routine surgical procedure, the fundamental events of this world-wide benefaction having occurred independently of Long’s prior but currently unrevealed achievements.

(2) *Horace Wells* (1815–1848), a leading dentist in Hartford, Connecticut, was present at a public entertainment by itinerant Chemical Lecturer G. Q. Colton in that city on December 10, 1844, during which were shown on men some of the then well known amusing “exhilarating” effects of inhalation of “laughing gas” (nitrous oxide). The hall in which the audience assembled was equipped with movable wooden benches or settees. One of the volunteer subjects

at this entertainment, while under the "exhilarating" influence of the gas, ran against some of the settees and in so doing severely "barked" his shins. A few minutes after this mishap, the subject—having recovered his senses—examined his shins while he sat on a settee near Wells, who learned by direct personal inquiry that the victim had been unaware of the painful injuries at the time of their occurrence. These striking conditions accorded with Wells' long-standing desire to find a way to prevent pain in dental operations—with the agonies of which he had become distressingly familiar—and led him immediately to conclude that, if sufficient nitrous-oxide gas were inhaled to cause unconsciousness, a surgical operation could be performed without pain in a person in that extreme condition. Wells tested this deduction in a surgical experiment on himself the next day, December 11, with the aid of Chemical Lecturer Colton (who supplied the gas) and a dental colleague, John M. Riggs, one of Wells' former dental pupils (who performed the operation). Despite the dangers of personal disaster from the action of the gas when inhaled to unconsciousness—the effects of which no one had previously explored—Wells had one of his own third molars extracted after he inhaled enough nitrous-oxide gas to induce complete insensibility. On regaining his senses shortly afterward, he and Riggs and Colton rejoiced that the extraction had been painless and that a new era in surgery had been inaugurated. This discovery of the principle of general inhalation anesthesia by Wells was achieved by constructive reasoning combined with a courageous personal test—conditions that did not apply to any of the other claimants of the title of discoverer of general inhalation anesthesia.

Having thus found a method to establish general anesthesia, Wells immediately began preparations to use it for the benefit of his patients and to help others to employ it. At that time, nitrous-oxide gas was not a common product and, without extended chemical experience and adequate facilities, was difficult to prepare without admixture of undesirable impurities. (For the operation on December 11, Chemical Lecturer Colton had given Wells some of the supply that Colton, an expert chemist, made for the entertainment on the night of December 10.) Wells, by active experimentation and self-instruction, soon made supplies of the gas for application of its pain-preventing qualities in his dental practice. By the middle of January—a month after his discovery—he had extracted teeth for about fifteen patients under nitrous-oxide anesthesia, nearly all of which operations were painless. There is no record that at that stage of his experience he knew why several failures occurred, but probably he assumed that not enough gas had been given or that impurities he did not succeed in eliminating from the gas were responsible. His Hartford dental and medical colleagues were kept informed about his procedures, and some of them followed his example.

From the moment of the discovery, Wells had an impetuous desire to make known widely and freely the great humanitarian benefits, as he foresaw them,

of general nitrous-oxide anesthesia. During the four weeks following his discovery, the knowledge he diligently acquired regarding the uncertainties in the preparation and application, and in the variables in the effects, of nitrous oxide was relatively very limited. Nevertheless, in the latter part of January 1845, before becoming expert in the preparation of nitrous oxide or adept in its administration, Wells sought opportunity, in Boston, to make a public demonstration of his method for the painless extraction of teeth—with nitrous-oxide gas he himself had produced. In this clinical demonstration at the Massachusetts General Hospital, before a skeptical medical audience, Wells, a "sensitive," "shy" and "retiring" man—who, under these trying pioneer conditions undoubtedly proceeded under extremely disconcerting nervous tension—was obliged to be simultaneously the chemist, lecturer, anesthetist and operator. The gas was administered to the patient from a rubber bag until Wells *assumed* that the degree of anesthesia was adequate. In that procedure, and during the succeeding preliminary surgical manipulations, the patient gave no sign of distress—anesthesia was presumably complete up to that point. But at the conclusion, as the loosened tooth was separated from its attachments, *the patient groaned!* The groan was instantly and vociferously regarded by the audience as decisive evidence that the "nerves of sensation" had not been made "temporarily insensible" by the nitrous oxide; that the projected demonstration of "painless surgery" had been an obvious failure; and that Wells was an impostor. Yet on regaining consciousness the patient, a medical student who volunteered from the audience and was not open to a charge of collusion, *stated that he had felt practically no pain*—evidently none until the operation had been nearly concluded. Wells, as the unassisted operator, criticized himself for having "removed the gas-bag too soon."

Since that day anesthetists have learned—what was not known by anyone in the Massachusetts General Hospital in January 1845—that during general inhalation anesthesia patients may groan, moan, make a variety of outcries and movements, or even scream, from causes other than sensation of pain. It is now evident that, on this occasion, Wells demonstrated the reality of general anesthesia, and that neither he nor any of his audience had sufficient knowledge of conditions in general anesthesia to interpret correctly the import of the groan that was mistakenly believed to be *conclusive* evidence of pain. What at the time seemed to be, and was discredited as, a failure then prevented prompt general recognition of the fundamental significance of Wells' discovery. An incidental groan, by its misleading influence, delayed for nearly two years the advent of general inhalation anesthesia as a routine surgical procedure.

This humiliating mishap in Wells' effort to convince a medical audience of the reality of the general anesthesia that had been used successfully on himself, and also by him in dental operations on his patients and by other practitioners in Hartford, was a severely debilitating experience for a man of Wells' extremely sensitive disposition. The nervous strain of his intensive absorption in the humani-

tarian possibilities of his discovery, the arduous nature of his exacting pioneer efforts in this relation and the associated responsibilities in his practice—and his inhalation tests, on himself, of the qualities of the various preparations of the gas he had been making for use on his patients—were also among the contributing conditions of an illness that enforced his temporary retirement from dental practice (April-September, 1845). During this period of disability, Wells was in consultation with other practitioners in Hartford, who continued the successful anesthetic use of nitrous oxide. After resumption of his practice, he administered the gas successfully in many operations. But the difficulties in preparing and handling pure nitrous oxide (not then a commercial product), the apprehension caused by the ashen appearance of the face and by the accompanying cyanosis of the lips under the conditions of its administration at that time, the spreading comments on the "failure" of Wells' public demonstration—and the related implications that nitrous oxide was not only ineffective but also dangerous—discouraged general tests of the utility of the gas. Apparently realizing the desirability of finding an anesthetic agent that could be used more conveniently than nitrous oxide, and acting presumably on current knowledge about "ether frolics" and their similarity to "laughing-gas drunks," Wells experimented privately with ether. In the summer of 1846—as an outcome of these experiments—he endeavored to convince Dr. Valentine Mott, a leading physician in New York City, that nitrous oxide *or ether* could be used to prevent pain in surgical operations. Why Wells, after his resumption of practice, did not promptly endeavor to repeat his public effort to demonstrate the reality of general inhalation anesthesia is a question that has occasioned many assumptions, but the reason is unknown.

After Wells arrived in Boston to arrange for the demonstration outlined above, he stated intimately the facts about his discovery to two men with whom he had previously been associated: to *William T. G. Morton*, a dentist, to whom Wells as a preceptor had taught dentistry and with whom Wells later had formed a brief partnership in Boston to promote the sale of a dental solder that Riggs invented; also to *Charles T. Jackson*, a physician and prominent chemist, who had been consulted by the partners, Wells and Morton, about their solder and who gave it his public endorsement. Neither Morton nor Jackson manifested any enthusiasm for, or special interest in, Wells' claims for the pain-preventing influence of inhalation of nitrous-oxide gas. Morton was sufficiently interested, however, to attend Wells' public demonstration, and undoubtedly was impressed on that occasion not only by Wells' comment on the premature discontinuance of the administration of the gas as the cause of the seeming failure, but also by the difference which he (Morton), as an experienced dentist, observed between the mild reaction of the unconscious patient at the end of Wells' demonstration and the usual manifestations of extreme distress by a patient throughout extraction of a tooth without benefit of anesthesia.

(3) *Charles T. Jackson* (1805-1880), a physician and prominent chemist in Boston, Massachusetts, endorsed the claims of Horace Wells and William T. G. Morton as partners to promote the sale of a dental solder that Wells invented; later, when told by Wells of the discovery of general inhalation anesthesia with nitrous-oxide gas, he (Jackson) did not manifest any special interest, as was stated in the preceding paragraph. Jackson's relation to Morton's achievement is indicated below.

After the demonstration by Morton (in 1846) that is noted in a succeeding paragraph, Jackson claimed that "in the winter of 1841-42" (Feb. 1942) he made a private observation on himself with ether "from which the discovery of anesthesia was deduced" by him. But although he was a physician, he failed to test his "deduction" in any surgical operation—conducted either by himself or by a surgeon to whom he revealed his "deduction"—and thus did nothing to give the benefits of anesthesia to any one.¹ Whether his private "deduction" was recalled by him, when he advised Morton to use ether (mentioned in the next paragraph) is unknown.

(4) *William T. G. Morton* (1819-1868), a dentist in Boston, Massachusetts, was present at Wells' public demonstration of nitrous-oxide anesthesia in January, 1845. In July 1845, at a conference with Wells in Hartford, Conn., during Wells' temporary retirement from dental practice, Morton, in a discussion about nitrous-oxide anesthesia, received from his former preceptor and partner the information and encouragement he then sought relating to nitrous-oxide—its preparation and the apparatus required, details of administration, etc.—and was advised by Wells to confer with their mutual friend, Charles T. Jackson, in Boston, for direct chemical assistance. A woman, from whom Wells in the fall of 1845 painlessly extracted a tooth while she was under nitrous-oxide anesthesia, enthusiastically recounted to Morton some months later her happy experience on that occasion. When Morton, belatedly following Wells' advice, applied to Jackson for nitrous oxide to be used for anesthetic tests, Morton was told that none was available; that it would have to be specially prepared, if he intended to use it; that ether vapor was well known to have "exhilarating" effects

1. In this respect Jackson (if his claim is accredited) was like Long—inattentive to the extraordinary humanitarian potentialities of wide-spread application of general anesthesia for the prevention of surgical pain. Another dubious claim of *priority in private use of ether* for surgical purposes was recorded by Lyman, in 1881, to the effect that William E. Clarke (who, as a student of chemistry in 1839 and of medicine in 1841 and 1842, had acquired intimate experience in ether and laughing gas "frolics," then widely current among students as "the only genteel way of getting drunk") administered ether, by inhalation of the vapor from a towel, to a woman from whom Elijah Pope, a dentist, extracted a tooth without pain. This was said to have occurred in Rochester, N.Y., in January, 1842. Why this unprecedented event—if it occurred—was not promptly announced by a participant, and not made public before 1881, has never been explained. (This situation was discussed in detail by Howard R. Raper, in his "Man against pain; the epic of anesthesia," pp. 284-85; New York; Prentice-Hall, Inc.; 1945.)