

THE  
HISTORY  
OF  
THE DEVELOPMENT  
OF  
MEDICAL SCIENCE IN AMERICA  
AS RECORDED IN  
THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES

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AN HISTORICAL STUDY

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BY  
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THERE are few undertakings more pleasant and profitable than the study of the development of some branch of scientific activity, and in a country so young as ours it is possible in many instances to trace such evolution from its very start, and to observe the sources in other countries from which its original inspiration was derived. It is so of our medical literature and teaching. The men who subsequently founded the first medical schools of America finished their medical studies under the great teachers in the universities of Leipsic, Leyden, London, and Edinburgh, and upon their return to this country imparted the learning of their masters to those who became their pupils. There was one drawback, however, to the early progress of medicine in America which retarded its development for many years, the lack of a medium of expression and communication for its workers, without which no science can thrive and develop.

For many years medicine possessed no literary channels worthy of the name in this country. Some of the writings of the founders of American medicine have been preserved to us; but much more of their learning was lost, not only to us, but to their colleagues, because of the lack of adequate facilities for its diffusion. Until the nineteenth century the text-books in general use in our medical schools were the works of Sydenham, Cullen, and Pringle in medicine and of Pott, Sharp, and John Hunter in surgery. Rush on "Fevers," and Dr. John Jones' work on "Surgery" were occa-

sionally used in conjunction with the books mentioned; but, as a rule, the student relied on copious notes from his master's lectures, and such note-books were preserved as his guides in practice subsequent to his graduation. Many of these faded relics are still to be seen in the possession of the descendants of the original writers and owners, often containing marginal notations of cases encountered by the doctor, concerning which he had evidently referred to his *vade mecum*. The nineteenth century was well advanced in its first quarter before it could be said that the student of an American medical college could rely on American text-books in his studies. As to periodical literature, the profession in this country was in even worse plight, although from time to time during the eighteenth century efforts had been made to establish medical journals. As early as 1735 some enterprising physicians in Boston, under the leadership of Dr. William Douglass, began the publication of a series of *Medical Memoirs*, but a knowledge of the contents intended for publication in the first number is all that has descended to us of the project. Most medical societies used the columns of the lay press as the means of preserving the records of their meetings and the papers read before them. Thus the American Medical Society, founded in Philadelphia in 1773, utilized the *Universal Asylum and Columbian Magazine*; and in its columns we find, for example, "Two Cases of Hepatitis," read before the American Medical Society, January 27, 1787, by Mr. John Purnell, of Maryland, along with several poetic effusions—"On Some Snow Melting on a Lady's Bosom" and "On Hearing a Lady Lament the Short-lived Pleasure of Youth and Quick Decay of Beauty"—and essays such as "Thoughts upon Female Education" and "Pride and Vanity Characterized." In 1788 the Medical Society of New Haven County published the first volume of *Transactions* ever issued by a medical society in this country. Several attempts were made to establish strictly medical periodicals, but they were all short-lived, partly from lack of intrinsic merit and partly from failure of professional support.

In 1820 Matthew Carey, a well-known publisher of Philadelphia, who not only issued medical books, but also wrote one of the most readable accounts of the yellow fever epidemic which occurred in Philadelphia in 1793, undertook the issue of a medical periodical, upon which was bestowed the title *The Philadelphia Journal of the Medical and Physical Sciences*. Dr. Nathaniel Chapman, Professor of the Institutes and Practice of Physic and of Clinical Medicine

in the University of Pennsylvania, assumed the editorial chair, and, stung by Sydney Smith's gibe—"In the four quarters of the globe who reads an American book? what does the world yet owe to an American physician or surgeon?"—he adopted it as the motto of



*N Chapman M.D.*

the *Journal*. Chapman was the sole editor until 1824, when, owing to pressure of other work, he associated with him in his labors Dr. William P. Dewees, Adjunct Professor of Midwifery in the University of Pennsylvania, and Dr. John L. Godman. In 1827 Dr.

Isaac Hays was added to the editorial staff, and from an early date he assumed the chief part of its labors and responsibilities, although it was not until 1841 that his name appeared on the title-page as sole editor. At the time of his first connection with the *Journal* Hays was quite a young man, but he had already made his mark as an ophthalmologist at a time when specialism was almost unknown. He was for many years surgeon to the Wills Eye Hospital in Philadelphia, and in 1840 he published the results of his investigations on color-blindness in an article entitled "The Impossibility of Certain Individuals to Distinguish Colors."<sup>1</sup> From the outset of his connection with the editorship Hays determined to make the *Journal* national in scope, and with this object in view he sought the co-operation of leading medical men in all parts of the country. With the issue of November, 1827, the name of the periodical was changed to that which it still bears, THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES. The design of the *Journal* was fully set forth in the number for May, 1829. It was to be issued quarterly, each number to consist of three departments—that of original essays, one of reviews of recent medical publications, and a periscope department, the latter to present records of medical progress in all parts of the world, made by abstracts from the best current medical literature. It was stated that the *Journal* was to be national in its character, as indicated by its name; that it was to be devoted exclusively to the improvement of medical science and to the elevation of the character and dignity of the medical profession, regardless of local and individual interests. No anonymous contributions would be published. This policy was always consistently adhered to by Dr. Hays and his successors, and to it no doubt is due much of the continuous success of the *Journal*. The greatest tribute to this success is to be found in the fact that of all the medical periodicals in the English language which were in existence at the time of its birth, but one, the *Edinburgh Medical Journal*, survives. At so early a period in its existence as 1840, and at a time when there was a great disposition on the part of our English cousins to view American productions with a deprecating eye, the *Lancet* stated editorially that "*The American Journal of the Medical Sciences* is by far the best periodical (before us); it is, indeed, the best of the trans-Atlantic medical publications; and, to make a comparison nearer home, is in most respects superior to the

<sup>1</sup> The American Journal of the Medical Sciences, August, 1840.

great majority of European works of the same description." At a much later date, in 1876, Dr. John S. Billings wrote of its files: "They contain many original papers of the highest value; nearly all the real criticisms and reviews which we possess; summaries of the progress of medical science and abstracts and notices of foreign works; so that from this file alone, were all the other productions of the press for the last fifty years destroyed, it would be possible to reproduce the great majority of the real contributions of the world to medical science during that period."



PHILIP SYNG PHYSICK.

That the best element of the profession in America was early enlisted in aid of the enterprise speaks well not only for the *Journal*, but for the medical men who recognized its value. In it they found reports of instructive cases and published their own views and experiences, so that it speedily became representative of American medicine

Among the early colleagues of Hays we may choose for special notice Physick, Warren, and Dudley. A most entertaining memoir of Philip Syng Physick was published by his son-in-law, Dr. Jacob Randolph, himself a well-known surgical authority, shortly after

Physick's death. The latter disliked literary work, and to-day it is chiefly by tradition that he is known to have been a most brilliant teacher and operator. His most famous operation was that performed by him when he was sixty-two years of age, upon the venerable Chief Justice Marshall, whom he cut for stone, removing upward of 1000



*Valentine Cott.*

calculi. In the course of five weeks the distinguished patient was in proper condition to return on horseback to his home in Virginia. The report of the case occurs in the *Journal* for February, 1832. In 1831 Dr. Randolph<sup>1</sup> published a detailed report of Dr. Physick's method of treatment for hip-joint disease. The account was accom-

<sup>1</sup> The American Journal of the Medical Sciences, February, 1831.

panied by a plate illustrating the application of a curved splint, whereby absolute rest of the part might be secured—a plan which has been productive of some of the most wonderful of the bloodless



*John C. Warner* —

triumphs of American surgery. Physick's last years were passed in much pain and discomfort, from dropsy and œdematous effusions in his legs. He died in 1837.



Gross, in his historical retrospect of surgery for the century previous to 1876, stated that it was doubtful if America would ever again produce at the same time four such brilliant surgeons as Physick, Warren, Dudley, and Valentine Mott. Dr. John C. Warren was one of the most distinguished sons of a family of doctors famous in the medical annals of this country. To his lot fell the honor of first publicly operating on a patient under the anæsthetic influence of ether. The name of Benjamin T. Dudley, of Kentucky, has never received its full meed of praise. He was the first in America to trephine for the cure of epilepsy, but his special claim to remembrance rests on his wonderful skill as a lithotomist, he having performed that operation 207 times, with but six deaths.<sup>1</sup> Mott figures largely in the early pages of the *Journal*. In 1818 he performed the first ligation of the innominate artery known in the history of surgery. Gross, in the course of his memoir of Mott, writes: "No surgeon living or dead ever tied so many vessels, or so successfully, for the cure of aneurism, the relief of injury, or the arrest of morbid growths. The catalogue, inclusive of the celebrated case of the innominate artery, comprises eight examples of the subclavian artery, fifty of the primitive carotid, one of the common iliac, six of the external iliac, fifty-seven of the femoral, and ten of the popliteal—in all 138." He was the first, in 1827, to tie the common iliac successfully, although the operation had been done previously, in 1812, by Gibson, Professor of Surgery in the University of Pennsylvania. In 1824 Dr. Mott<sup>2</sup> amputated successfully at the hip-joint. The operation had, however, been previously performed by Dr. Walter Brashear, of Bardstown, Ky., in 1806. In 1828 Mott<sup>3</sup> performed the remarkable surgical feat of removing the clavicle in its entirety, the operation lasting four hours and requiring the ligation of forty vessels. A remarkable sequence of articles occurs in connection with this case, for as recently as the issue of the *Journal* for January, 1883, Dr. F. Peyre Porcher, of Charleston, S. C., wrote an account of the "Post-Mortem Dissection of the Region of the Clavicle," this bone having been removed for osteosarcoma by Dr. Valentine Mott, of New York, in 1828, when the subject was in his nineteenth year, and fifty-four years before his death." The patient was the Reverend William B. Yates. Dr. Mott was in the habit of refer-

<sup>1</sup> The American Journal of the Medical Sciences, April, 1846.

<sup>2</sup> Philadelphia Journal of the Medical and Physical Sciences, 1824.

<sup>3</sup> The American Journal of the Medical Sciences, November, 1828.

ring to this as his "Waterloo operation," as it was performed upon the 18th of June, the anniversary of that battle, and in his account of it writes that it "far surpassed in tediousness, difficulty, and danger anything which I have ever witnessed or performed." It should be noted that amputation above the shoulder-joint, involving the removal of both the clavicle and scapula, was first done by Dr. Crosby, Professor of Surgery in Dartmouth College, in Hanover, N. H., and a few months later was again performed by Dr. Reuben D. Mussey,<sup>1</sup> also of Hanover. Another early instance of this operation is recorded by Dr. David Gilbert in 1847.<sup>2</sup>

Among other notable achievements in these early days of American surgery should be mentioned the extirpation of the tongue for congenital hypertrophy, which was first accomplished in this country by Dr. Thomas Harris<sup>3</sup> in 1830. Dr. Josiah C. Mott,<sup>4</sup> in 1844, described a case of coccygeal neuralgia which he had relieved by removal of the coccyx. This was the first operation of this character as well as the first time the disease had been accurately described. A few years later Sir James Y. Simpson described the condition and applied to it the term coccygodynia.

To Dr. Knight, of New Haven, Conn., is due the credit of having been the first to successfully employ digital compression for the cure of an aneurism.<sup>5</sup> According to Dr. Gross,<sup>6</sup> the first surgeon to perform nephrectomy was Dr. Walcott, of Milwaukee, and to another Western surgeon, Dr. John S. Boggs, of Indianapolis, belongs the credit of performing the first cholecystotomy.

Some of the earliest triumphs of American surgery are to be found in the realm of gynecology. In 1809, in the little town of Danville, Ky., Ephraim McDowell performed the first ovariectomy, although he published no report of any of his cases until 1817. By 1830 he had performed the operation seventeen times, with eight complete recoveries. This work evoked the following comment from the *Medico-Chirurgical Review* of London:<sup>7</sup> "A back settlement of America, Kentucky, has beaten the mother country, nay Europe itself, with all the boasted surgeons thereof, in the fearful and formidable operation of gastrotomy, with extraction of the ovaries." As Dr. Almy notes, however, the above was intended as sarcasm, the writer adding further on "our skepticism, we must

<sup>1</sup> The American Journal of the Medical Sciences, February, 1838.

<sup>2</sup> Ibid., October, 1847.

<sup>3</sup> Ibid., November, 1830.

<sup>4</sup> Ibid., October, 1844.

<sup>5</sup> Ibid., July, 1848.

<sup>6</sup> A Century of American Medicine, Philadelphia, 1876.

<sup>7</sup> Quoted by Leonard B. Almy, Yale Medical Journal, August, 1901.

confess it, is not yet removed." In 1821 Dr. Nathan Smith, of New Haven, Conn., ignorant of McDowell's work, also performed an operation for the removal of a tumor of the ovary, but it was many years before the operation was recognized as a legitimate surgical procedure. Dr. Alexander Dunlap, of Springfield, Ohio, stated that in 1843 he wrote an account of his first ovariectomy, and sent it to a medical paper for publication, only to have it returned with the statement that they were not willing to publish the report of such an unjustifiable operation. The trials of the early workers in this field were ably set forth in an essay published some years ago by Dr. Washington L. Atlee, to whom, with



*W. L. Atlee*

Dr. John L. Atlee, the greatest credit is due for the persistence and zeal with which they advocated and practised the removal of diseased ovaries. In 1845 W. L. Atlee<sup>1</sup> published a synopsis of 101 ovariectomies performed prior to that time. This was supplemented by further reports which appeared in the *Journal* in 1855, 1870, 1871, and 1872. Up to the date of his last report he had performed the operation, under all sorts of conditions, 236 times, with a mortality of 30 per cent. Double ovariectomy was performed by John L. Atlee<sup>2</sup> in 1843.

<sup>1</sup> *The American Journal of the Medical Sciences*, 1845.

<sup>2</sup> *Ibid.*, April, 1844.

But it must not be thought that *The American Journal of the Medical Sciences* devoted its pages exclusively to the record of advances made in surgery and its collateral branches during the past century. On the contrary, its pages teem with records made by physicians as well as those by surgeons, and most of the epoch-making contributions of American physicians are contained in it. Perhaps the first and most important of these is the classical paper of Dr. Gerhard on the "Differentiation between Typhus and Typhoid Fever," which he published in the *Journal* in 1837.<sup>1</sup> Not only was this paper valuable because it clearly taught us this most important differentiation for the first time, but because it aided in developing and maintaining the influence of the French School of Medicine with American physicians for many years to come, and caused American students to flock to Paris to study under the great French masters of medicine of that period; so that for the first time in many years Leyden, Edinburgh, and London were temporarily forsaken for the wards of Salpêtrière and the Hotel Dieu, of Paris. It would be hard to find any more interesting reading in the history of comparatively modern medicine than these records of Dr. Gerhard, who had performed a large number of investigations under the skilful training of Louis, and who, upon his return to America, continued his researches until they were crowned by the success which is now familiar to us all. Not satisfied with these extraordinary contributions to the literature of medicine, Gerhard, in 1839,<sup>2</sup> pointed out in the pages of the *Journal* the close relationship that existed between hydrocephalus and tuberculous disease of the meninges, and again we find that we are indebted to him and to the *Journal* for the first adequate description of epidemic cerebro-spinal meningitis, he having had the opportunity to study the disease during the epidemic in 1863. Nor must we forget that in still another paper, which he published in the *Journal* in May, 1839, he made a clear differentiation of lobar and lobular pneumonia—a differentiation which we regret to say was too frequently ignored by practitioners and almost universally ignored by statisticians.

From the Southern States contributions dealing with medicine also found publication in the same channel, and as early as November, 1828, Dr. S. Henry Dickson, of South Carolina, who afterward became Professor of Medicine in the Jefferson Medical College

<sup>1</sup> *The American Journal of the Medical Sciences*, February and August, 1837.

<sup>2</sup> *Ibid.*, 1839, p. 313.

of Philadelphia, wrote an excellent description of dengue or break-bone fever; and six years later his observations upon cholera, which had been prevalent in Charleston, S. C. Still later, in the *Journal* for July, 1849, he published an important and interesting article on the subject of contagion. Dr. William E. Horner, during the cholera epidemic of 1835-1836, described the anatomical lesions of this disease, pointed out the cause of the rice-water stools, and showed that they were due to desquamation of the intestinal epithelium.

In connection with the very wide-spread interest which is now taken in the out-door and fresh-air treatment of pulmonary tuberculosis it is interesting to note that one of the first scientific records of the value of this treatment appeared in the *Journal* in May, 1840, when an account is given of the case by Dr. Joseph Parrish, who early in life had shown marked evidences of pulmonary disease, and who, by continued living in the open air among the pines of New Jersey, effected a complete cure of his pulmonary tuberculosis. Indeed, his cure was so complete that for many years after it was often claimed that he had never suffered from that disease; but, being confident of the fact that he had been cured by this method of living, he urged that an autopsy should be performed at his death. His wish was complied with, and the examination of his lungs revealed the vestiges of tubercular lesions, thereby forming one of the first records that pulmonary tuberculosis is a distinctly curable disease.

Among the earliest observers to assert his belief in the specific origin of diseases was Dr. John K. Mitchell, of Philadelphia. He believed in the nervous origin of rheumatism, and described in *The American Journal of the Medical Sciences*<sup>1</sup> cases which he believed proved the correctness of his views. While some of these he described were undoubtedly cases of rheumatic arthritis, and while our knowledge of bacteria has overthrown his views in regard to the origin of rheumatic fever, there is a strong tendency at the present time to believe that rheumatic arthritis is of nervous origin, although since Mitchell's first report many physicians have believed otherwise.

A paper of even greater importance from the pen of Dr. Mitchell was his classical monograph upon the cryptogamic origin of malarial and other fevers,<sup>2</sup> in which he anticipated many observations, now

<sup>1</sup> May, 1831, and August, 1833.

<sup>2</sup> *The American Journal of the Medical Sciences*, July, 1849.

established facts, in the etiology of several infectious diseases. Prior to this Dr. Thomas Stewardson<sup>1</sup> described alterations in the structure of the liver in malarial fever as he had found them in a series of autopsies at the Pennsylvania Hospital.

The pioneer work, which is now historic, of Dr. J. Forsyth Meigs,<sup>2</sup> assisted by Dr. William Pepper and Dr. Edward Rhoads, upon the study of blood in malarial fever in 168 cases, with blood examinations of 115, is recorded in the *Journal*, and it is interesting to note that at so early a period they found granules and pigment cells in the blood of such patients. Many years afterward, Dr. Pepper asserted that these bodies which were taken for granules and pigment cells were undoubtedly identical with the micro-organisms of malarial fever.

The researches of Dr. Gerhard on typhoid fever received strong support from some observations made by Dr. Austin Flint<sup>3</sup> in the report of a series of cases observed during an epidemic of the disease at Erie, Pa. Besides his text-book, which appeared in 1867, Flint made many contributions to medical literature. Among the most noteworthy may be mentioned that on "Consumption,"<sup>4</sup> "A Review of 133 Cases of Pneumonia, with Reference to the Diminution of the Excretion of Chlorides,"<sup>5</sup> "On Auscultation and Percussion,"<sup>6</sup> and, finally, his classical article on "Cardiac Murmurs,"<sup>7</sup> in which he emphasized the fact that too much attention was frequently paid in prognosis to the existence of cardiac murmurs, and also described for the first time the presystolic murmur heard at the apex in aortic regurgitation, which has ever since borne his name.

The literary fame of Dr. Oliver Wendell Holmes has been allowed to overshadow the real value of his services to the science of medicine as a teacher and writer. In April, 1842, he published in the *New England Quarterly Journal of Medicine and Surgery* an article on "The Contagiousness of Puerperal Fever," a long abstract of which appeared in *The American Journal of the Medical Sciences* for July, 1843. In this he urgently insisted on the great danger from the contagiousness of the disease, and proved that it was frequently conveyed by the physician from one patient to another. His views met with strenuous opposition from two of the

<sup>1</sup> *The American Journal of the Medical Sciences*, 1841-1842.

<sup>2</sup> Abstracted in *The American Journal of the Medical Sciences*, April, 1868.

<sup>3</sup> *The American Journal of the Medical Sciences*, July, 1845.

<sup>4</sup> *Ibid.*, January, 1858.

<sup>5</sup> *Ibid.*, January, 1851.

<sup>6</sup> *Ibid.*, April, 1862.

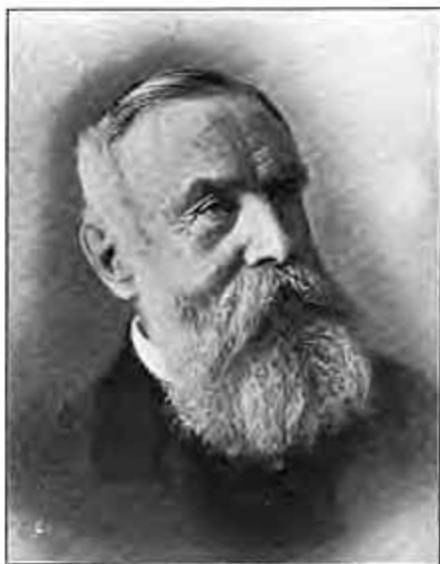
<sup>7</sup> *Ibid.*, July, 1862.

foremost obstetricians of their time—Dr. Charles D. Meigs and Dr. Hugh L. Hodge, the inventor of the pessary which bears his name. The latter, some years before, had received a practical demonstration of the contagiousness of puerperal fever, when, in 1833, it had become necessary to close the maternity ward of the Pennsylvania Hospital, of which he had charge, because of an epidemic of that disease, but the lesson appears to have been disregarded. Twelve years after the original appearance of his article Holmes republished it, with answers to the objections which it had excited from Meigs and Hodge. Holmes was particularly severe and caustic in his treatment of Meigs. Hodge's conduct he regarded as "less objectionable," and therefore treated him with less severity. During the controversy many contributions on the subject appeared in the *Journal*. In one of the later editions of his works Holmes expresses his regret that he had not published his original essay in *The American Journal of the Medical Sciences* because of its wide circulation and high standing.

Another bitter controversy which inspired many articles in the *Journal* was the celebrated question as to who was the real discoverer of ether. For generations those whose mission it was to alleviate human ills by surgical measures had sought for means by which to allay the pain which they were obliged to inflict upon their patients. The victim of a surgical operation was often drugged and nauseated or benumbed into a condition of semi-insensibility by toxic doses of opium, alcohol, or even nicotine. Dr. John C. Warren<sup>1</sup> stated that he had annually alluded to the subject in his lectures for many years, and when he was approached by W. T. G. Morton, a dentist of Boston, who stated that he had an agent which would produce unconsciousness and insensibility to pain, he gladly agreed to yield him an opportunity to test its efficacy. Accordingly, on October 16, 1846, in the operating-room of the Massachusetts General Hospital, Morton administered the mysterious substance, which he termed "letheon," to a patient, from whom Warren proceeded to remove a tumor of the neck. On regaining consciousness the man asserted that he had suffered no pain. The same success attended subsequent operations, but in a short time the surgeons of the hospital refused to countenance Morton's discovery any further unless he would reveal its nature. He yielded, and "letheon" proved to be nothing more than ordinary sulphuric ether with its characteristic

<sup>1</sup> *The American Journal of the Medical Sciences*, January, 1847.

odor disguised by an admixture of aromatics. As soon as its value began to be appreciated the credit of the discovery of its use as an anæsthetic was claimed by four men—Marcy, Jackson, Wells, and Long. The claims of the three first-named possessed absolutely no value. Crawford W. Long, however, did undoubtedly use ether for the purpose of rendering patients unconscious during surgical operations as early as 1842. He was a country practitioner in a sparsely populated district of Georgia, and without ready means of proclaiming his discovery or facilities for testing its usefulness. It was not until 1854 that he made known his claims. To Morton



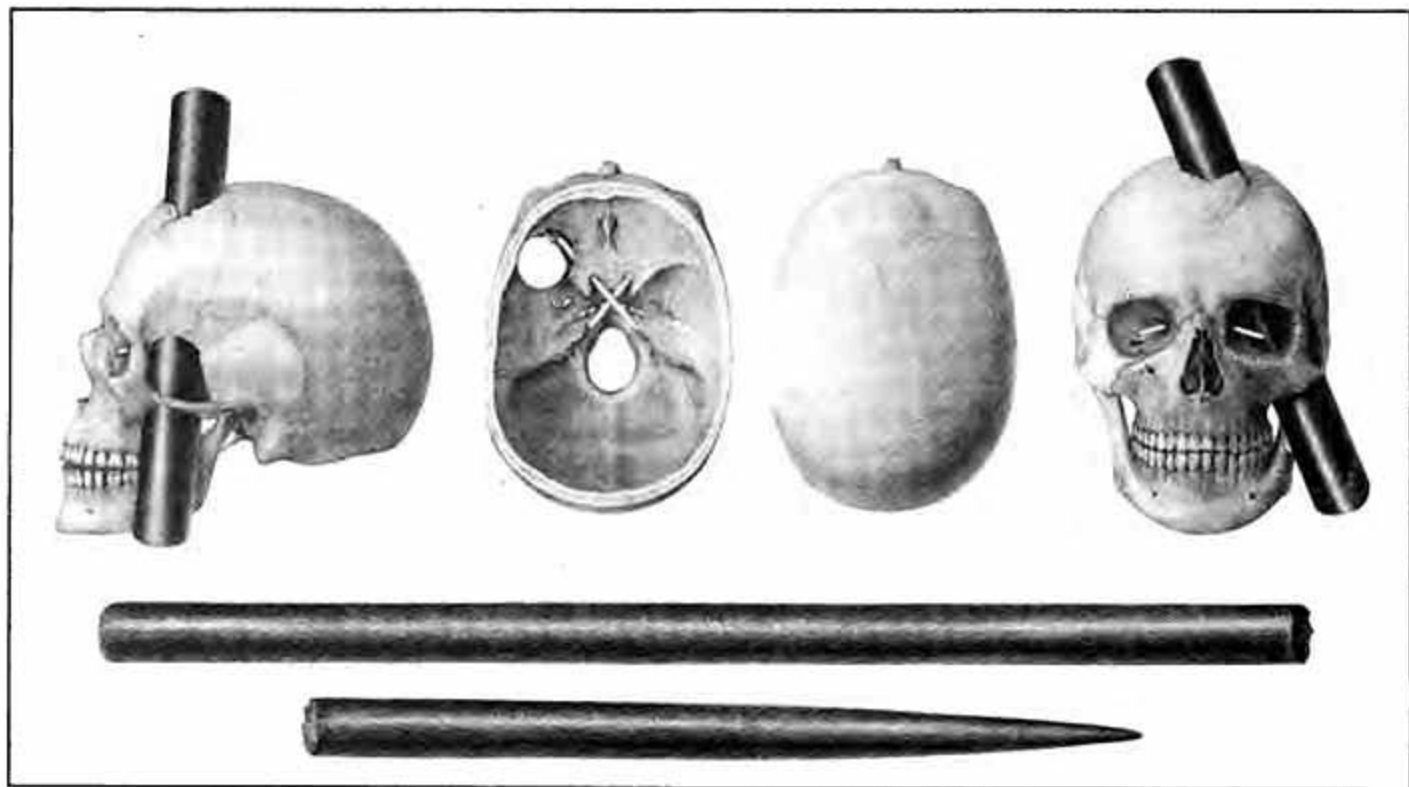
HENRY J. BIGELOW.

is consequently due the credit of the first public demonstration of its usefulness. The term anæsthetic as applied to the agent was first suggested by Oliver Wendell Holmes in a note to Morton.

In 1852 Dr. Marion Sims<sup>1</sup> revolutionized gynecology by the publication of his article on "Vaginal Fistula." Owing to the difficulty of obtaining a satisfactory view of the vagina and cervix the operative treatment of these parts was very unsatisfactory. As a result of Sims' article, in which he described the speculum which bears his name, and pointed out the best posture in which to place the

<sup>1</sup> The American Journal of the Medical Sciences, January, 1852.





"The American Crow-bar Case."

patient for examination and operation, this surgical procedure was deprived of difficulty.

In the same year Dr. Henry J. Bigelow, of Boston, performed excision of the hip for the first time in America.<sup>1</sup> Two years previously he had published<sup>2</sup> a report of one of the most remarkable surgical cases on record, the famous "American crow-bar case." The patient, while blasting rock, was engaged in tamping powder in a hole, using for that purpose an iron crow-bar weighing thirteen and a half pounds. The powder exploded prematurely, driving the bar upward in such a manner that it entered the man's head at the angle of the jaw and passed upward and out through the middle of the frontal bone. The patient made an almost complete recovery, suffering no permanent injury beyond the loss of vision in one eye. Dr. Bigelow wrote many other articles of great value, the most important probably being his Boylston Prize Essay on "The Hip."

A most valuable procedure, the discovery of which is to be credited entirely to American genius, was that of thoracentesis. Dr. Henry J. Bowditch<sup>3</sup> had long been dissatisfied with the futility of attempting to relieve pleural effusions by the usually employed methods of salivation, bleeding, and blistering. Efforts to relieve effusion by incision had been tried many times before by physicians, but had always ended disastrously because of infection. Dr. Bowditch's first attempt at aspiration proved a failure because of the faulty construction of his instrument. In the meantime Dr. Morrill Wyman, of Cambridge, Mass., had invented a useful form of aspirator, and Bowditch, learning of the instrument, procured one. After modifying it somewhat he was able to accomplish his purpose, publishing the first account of the operation in 1852. In 1863 he published<sup>4</sup> a statement of his results for the preceding eleven years, consisting of 204 cases, in which he had aspirated 325 times with perfect safety.

Many important studies on the pathology of the thoracic viscera were made by the late lamented J. M. Da Costa, of which may be mentioned his exhaustive study of the pathological anatomy of croupous pneumonia,<sup>5</sup> and a paper<sup>6</sup> on "Functional Cardiac Murmurs," defining their real value as aids to diagnosis. In 1871 he contributed to the *Journal* his valuable observations on the "Irritable Heart of Soldiers," a condition that had been previously reported on by Dr. Alfred Stillé and Dr. Henry Hartshorne.<sup>7</sup>

<sup>1</sup> The American Journal of the Medical Sciences, July, 1852.

<sup>2</sup> Ibid., April, 1852, and April, 1863.

<sup>3</sup> Ibid., October, 1855.

<sup>4</sup> Ibid., July, 1860.

<sup>5</sup> Ibid., July, 1869.

<sup>6</sup> Ibid., July, 1864.

One of the most prominent and a very frequent contributor to the *Journal* from the close of the Civil War until his death, in 1889, was Dr. John C. Dalton, Professor of Physiology in the College of Physicians and Surgeons of New York. He is now most frequently remembered as the author of his "Text-book of Physiology" and his *magnum opus* on "Cerebral Topography;" but much of his best work appeared in the form of short articles in the *Journal*.

The *Journal* celebrated the centennial of the Declaration of Independence by publishing a valuable series of historical articles on the preceding century of American medicine. These included "Practical Medicine," by Dr. Edward H. Clarke; "The History of Modern Anæsthesia," by Dr. Bigelow; "Surgery," by Dr. S. D. Gross; "Obstetrics and Gynecology," by Dr. T. Gaillard Thomas; "Literature and Institutions," by Dr. John S. Billings.

In February, 1879, Dr. Isaac Hays died. As may be gathered from this brief sketch of the medical history of the nineteenth century in this country, the period of his editorship included an era of progress hitherto unprecedented in medical science, commencing with the days of Physick, Nathan Smith, and Mott, and continuing to the dawn of modern surgery, introduced by the great discovery of Lord Lister. It speaks volumes for his ability and discernment that the *Journal* under his management was ever the foremost in the promulgation of new discoveries and the advancement of the most recent ideas of medicine. So marked was the impress of his character upon the *Journal* that for many years it was popularly known by the name of "Hays' Journal."

In 1868 Joseph Lister introduced his famous method of wound treatment on antiseptic principles. Its announcement caused intense interest in surgical circles, with the usual accompaniment of an enormous output of literature in the medical periodicals. Even so late as 1880 we find American surgeons deeming it necessary to write articles in defence of the method. There is an abstract in the number of the *Journal* for January, 1878, of a circular order issued by the Surgeon-General's Department, entitled a "Report on Lister's System of Wound Treatment," by Assistant Surgeon Alfred C. Girard, in which he speaks with enthusiasm of the wonderful results he had witnessed while travelling abroad. In the *Journal* for January, 1879, and again in January, 1881, Dr. Lewis A. Stimson, of New York, published articles on the value of "Antiseptic Catgut Ligature," and in April, 1880, the late Dr. Thomas M. Markoe wrote

a detailed report on "Through Drainage in the Treatment of Wounds." The subject had been very fully exploited to the *Journal's* readers throughout the intervening years, not only in the form of original articles, but in the department of Progress of Medical Science.

In January, 1881, Dr. William Hunt, of Philadelphia, reported the famous case of a woman who had been fatally burnt when eight and a half months advanced in pregnancy. Some hours before her death she gave birth to a well-formed but dead female child, which was "apparently blistered and burnt in extent and in places almost exactly corresponding to the injuries of the mother." Pictures illustrating this fact accompany the article. In October, 1881, the *Journal* printed the official record of the autopsy on President Garfield. There were present and assisting at the post-mortem Dr. D. W. Bliss, Surgeon-General J. K. Barnes, U. S. A., Surgeon J. S. Woodward, U. S. A., Dr. Robert Reyburn, Dr. Frank H. Hamilton, Dr. D. Hayes Agnew, Dr. Andrew H. Smith, and Dr. D. S. Lamb. The report is accompanied by two pictures showing the course of the ball through the first lumbar vertebra. This subject possesses an added interest in relation to the recent tragedy at Buffalo.

In the number for October, 1882, Osler, to whom the *Journal* has been indebted for many other notable contributions, writes "On Echinococcus Disease in America." Among Dr. Osler's other articles should be especially mentioned his papers on "Sporadic Cretinism in America," which appeared respectively in the *Journal* for November, 1893, and October, 1897. The article published in 1893 was one of the earliest investigations made in this country in the pathology of the ductless glands. Among other early contributors to the *Journal* on the same subject were Dr. W. Gilman Thompson, of New York, and Dr. James J. Putnam, of Boston.

Following von Aurep's important announcement, in 1880, of the value of cocaine as a local anæsthetic, there appeared many reports of cases in which it had been used for various minor operative procedures.

Dr. Senn's valuable researches on the pathology and surgery of the pancreas appeared in the numbers of the *Journal* for July, 1885, July, 1886, and January, 1887. Only recently it has been stated by a well-known surgical authority that practically nothing of real value has been added to our knowledge of the subject since their publication.

In 1887 the important step was taken of changing the periods of

publication of the *Journal* from quarterly to monthly, accompanied by an increase of nearly forty per cent. in the number of its text pages. The innovation was greatly appreciated and the popularity of the magazine largely increased thereby.

One of the earliest authoritative publications to appear in this country on appendicitis was by Dr. Reginald H. Fitz, on "Perforating Inflammation of the Vermiform Appendix, with Special Reference to its Early Diagnosis and Treatment," in the *Journal* for October, 1886. In the same number there is an article on "Yellow Fever: Its Transmission by Means of the Culex Mosquito," by Dr. Charles Finlay, in which he distinctly enunciates certain of the views which have but recently been reannounced. Again, in the *Journal* for September, 1891, he writes on "Inoculation for Yellow Fever by Means of Contaminated Mosquitoes." In the *Journal* for December, 1891, it is curious to find his views combated by no less an authority than Dr. George M. Sternberg, now Surgeon-General of the United States Army, and one of the greatest living authorities on bacteriology and allied subjects.

Dr. Duhring contributed to the *Journal* in 1884 some important reports on dermatitis herpetiformis, which disease has ever since borne his name. Dr. John K. Mitchell<sup>1</sup> in the early years of the *Journal* advocated the use of suspension in the treatment of Pott's paralysis, and sixty-three years later his son, Dr. S. Weir Mitchell,<sup>2</sup> again revived the practice and demonstrated its usefulness.

In 1890 Professor Behring announced his discovery of the anti-toxin of diphtheria. This great therapeutic advance excited the most intense interest in the medical world, and resulted in the publication of numerous investigations of the subject and reports of cases treated by the new method. One of the most notable of the early American contributions was by Dr. Louis Fischer,<sup>3</sup> of New York.

Two very valuable contributions to the *Journal* in 1891 were on "Conditions Underlying the Infection of Wounds," by Dr. William H. Welch, and "Wound Infection," by Dr. Roswell Park. They marked steps in the path of the scientific study of wound pathology. The first original contribution made to the *Journal* on Koch's tuberculin was by Professor R. H. Chittenden, of Yale, and P. C. Foster, and appeared in the number for July, 1891. It was the precursor of many other reports and investigations on the same subject.

<sup>1</sup> American Journal of the Medical Sciences, January, 1836.

<sup>2</sup> *Ibid.*, May, 1892.

<sup>3</sup> *Ibid.*, January, 1895.

In the autumn of 1892 cholera was imported into New York City by ships sailing from the cholera-infected city of Hamburg. The *Journal*<sup>1</sup> published several articles describing the disease as it occurred on the ships in New York harbor. In the next issue was contained a description of the epidemic in Hamburg, by Dr. F. Reiche, of that city. Dr. Fenger,<sup>2</sup> of Chicago, published in the *Journal* the valuable results of his experience and research in the surgery of stones in the common bile duct, and in the same year appeared Dr. William B. Coley's<sup>3</sup> report on the therapeutic use of the toxin of erysipelas in the treatment of non-operable malignant tumors.

In March, 1896, the *Journal* contained a symposium on the "Clinical Application of the Röntgen Rays," by Professor Magie, of Princeton, and Drs. Keen and Davis, of Philadelphia. So soon as it appeared probable that there might be a field of usefulness for the discovery of Professor Röntgen in the realm of medicine the *Journal* instituted a series of experiments to ascertain, as far as possible, the real extent of their value. The reports were accompanied by a most excellent series of illustrations. In the issue for August of the same year there was a contribution on "The Practical Application of the Röntgen Rays in Surgery," by Drs. J. William White, Arthur W. Goodspeed, and Charles L. Leonard.

In *La Semaine Médicale* for June, 1896, Widal described in full certain phenomena occurring in the blood of typhoid fever patients, for which he claimed great diagnostic significance. The value of the method was fully discussed by Drs. H. M. Biggs and W. H. Park<sup>4</sup> shortly afterward.

In the *Journal* for March, 1897, there appeared a series of special articles on the Bubonic Plague by Drs. Edward F. Willoughby, Alvah H. Doty, and Walter Wyman. These are well supplemented by the report of the Special Commission of the United States Government to investigate the recent outbreak of the disease in San Francisco, which appeared in the October number for the current year.

**PUBLISHERS' NOTE.** The widening field of American medical development demands broader channels of publication than the present form of *The American Journal of the Medical Sciences* can furnish, and in conformity with its custom of anticipating and

<sup>1</sup> American Journal of the Medical Sciences, January, 1893.

<sup>2</sup> *Ibid.*, February and March, 1896.

<sup>3</sup> *Ibid.*, September, 1896.

<sup>4</sup> *Ibid.*, March, 1897.

providing for the wants of the profession, it will, with the issue for November, 1901, permanently double the space accorded to Original Communications. This increase in size will render it possible to present a number of features which will greatly augment the practical value of the *Journal* to its readers. Recognizing the especial interest of articles devoted to the clinical side of medicine and surgery, the *Journal* will give particular attention to clinical reports of cases, lectures, etc., to be contributed by the foremost practitioners of this country, illustrations being freely used where they can render service.

The past decade has been marked by the appearance of a number of epoch-making discoveries, and the immediate future promises to be even more fruitful. As the *Journal* in the past has been the source to which the American profession for three-quarters of a century has looked for authoritative accounts of all advances in the medical sciences, no effort will be spared to maintain the position in this respect which it has so long enjoyed. For this it has peculiar advantages arising from its reputation throughout the civilized world, the lofty standard which it has always maintained and its wide circulation among the best class of the profession.

The department of Progress of Medicine, containing abstracts from the world's medical literature, will be continued as heretofore. These abstracts have ever been recognized as possessing the greatest value from the fact that they are made by men of the highest standing in the various subjects. This department is divided into sections on medicine, surgery, pediatrics, therapeutics, obstetrics, gynecology, otology, laryngology, dermatology, ophthalmology, hygiene, and pathology, the abstracts being sufficiently detailed to present in the most concise form the entire gist of the articles which they represent.

Another feature of the *Journal*, which has always been one of its most valuable departments, is that devoted to the reviews of medical books. Here the reader finds new works reviewed and criticised by competent judges who describe the characteristics of the volume in such a way as to give scientific information and determine their value to the practitioner. This feature will be continued on the same high plane as heretofore.