Edmund Andrews / by William E. Quine.

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

EDMUND ANDREWS

By WILLIAM E. QUINE, M.D., Chicago, Illinois

Reprint from
SURGERY, GYNECOLOGY AND OBSTETRICS
December, 1922, pages 824-827

EDMUND ANDREWS

DR. ANDREWS was born in Putney, Vermont, in 1824, and died in Chicago, in 1904. His father was the Rev. Dr. E. D. Andrews, a Congregational minister, and his mother, Mrs. Andrews (née Lathrop), was the daughter of a physician. The family history shows an unbroken line of American-born ancestors dating back to 1728. His grandfather was a soldier in the Revolutionary War. A brother of Edmund was a medical missionary in Hawaii and a graduate of Dartmouth. This brother was the father of the late Dr. George P. Andrews, sometime dean of the Detroit Medical College and professor of medicine in that institution. Another brother was a federal judge in Knoxville, Tennessee.

In the early days and especially in rural communities, the meagerness of the salary of a minister of the Gospel made it necessary for him to employ additional measures of support, and young Andrews from early boyhood, became inured to the hardy discipline of his father's farm. But this was never allowed to interfere with attendance at the best schools in the neighborhood, and on occasions home instruction was given as well. He describes himself at this period of life as a great straddle-legged rustic who had not achieved noticeable popularity as a beau. Loss of voice compelled the father to withdraw from the ministry, and, after several smaller changes in location, in 1841 the family moved to Armada, Michigan, and there proceeded to carve a fine farm out of the primeval forest. Meantime young Andrews was kept at his studies as diligently as possible, and his preparatory work was so well accomplished in the Academy of Romeo, Michigan, that in 1846 he was admitted to the sophomore class of the University of Michigan, which just then had opened its doors.

During his career as a student he manifested a decided preference for the scientific studies, and this preference dominated his activities throughout life. While attending his class work he helped out his expenses by teaching vocal music and leading the church choir.

He received his bachelor's degree in 1849 and in 1850 entered the medical Department of the University which that year opened its doors for the first time. In 1852, he received his medical degree and also his master's degree, and in 1881 his Alma Mater conferred upon him the final degree of LL.D.

Immediately after his graduation Dr. Andrews was elected demonstrator of anatomy in his Alma Mater and a year later was made professor of comparative anatomy. In 1856 he came to Chicago to accept the demonstratorship of anatomy in the Rush Medical College, but he soon found this position to be uncongenial and relinquished it.

While still connected with the University of Michigan the young philosopher had published several essays in the medical periodicals of the country, in which he advocated a graded system of medical teaching and the requirement for admission to medical colleges of a respectable measure of preliminary scholarship. It was, therefore, easy and natural for young Andrews to join with N. S. Davis, H. A. Johnson and other physicians of like spirit, in founding the Chicago Medical College, which was the first medical college in the United States to adopt a graded system of instruction. Dr. Andrews occupied the chair of surgery and clinical surgery in this institution for many years.

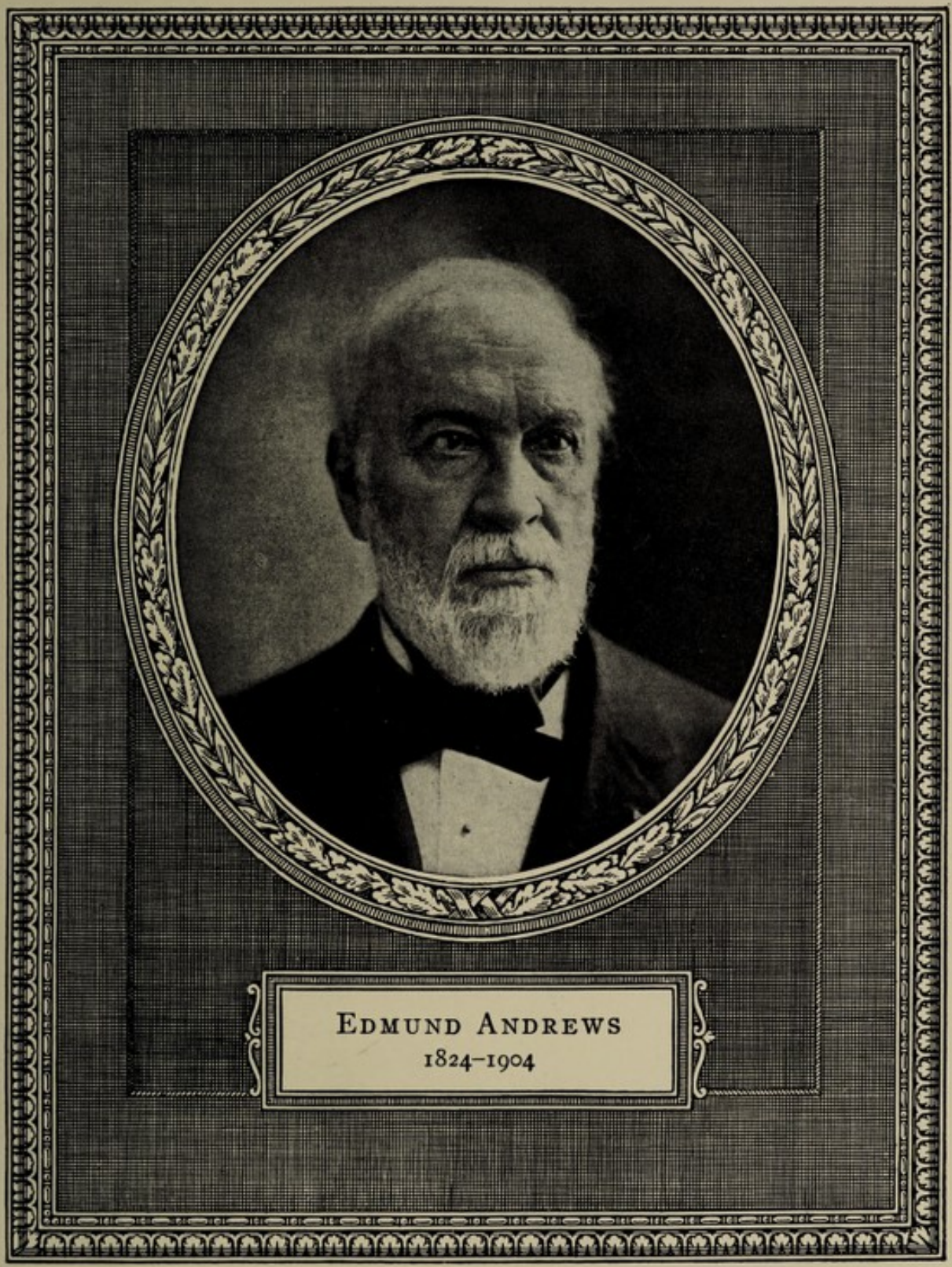
When Dr. Andrews came to Chicago he left behind him in Michigan two remembrancers: The Michigan State Medical Society, of which he was one of the organizers, and the *Peninsular Journal of Medicine and the Collateral Sciences*, of which he was one of the founders.

Early in the Civil War, Dr. Andrews was appointed surgeon-in-chief of Camp Douglas in Chicago, then a training camp for state troops; but soon after he was appointed to the Federal Service as surgeon of the First Illinois Light Artillery, and served in the campaigns against Shiloh, Corinth, and Vicksburg. After some months of hard service he contracted dysentery which, continuing without check or abatement, finally became so severe as to imperil his life and compel him to withdraw from the service. Full recovery required a year and a half of careful treatment after his return to Chicago.

During his military service he was the first to keep systematic records of army cases of disease and injury. His reports to the Surgeon General have been used as the basis on which the records of the office of the Surgeon General have since been kept. Some time after his withdrawal from the army, Dr. Andrews published a very extensive essay on military statistics, which was accepted by later writers as authoritative for many years.

He visited Europe in 1866 and spent his time mostly in the hospitals of Paris and London. He was powerfully impressed by the teachings of Lister.

One of the most notable of Dr. Andrews' labors was the study of the relative dangers attending the induction of anæsthesia by chloroform, ether, nitrous oxide, and a mixture of chloroform, ether and alcohol. His conclusions, based on the analysis of hundreds of thousands of cases, were quoted as authoritative in current and textbook literature for many years thereafter. A fact not generally known is that Dr. Andrews was the first to test, and to write on "Gas-Oxygen Anæsthesia."



EDMUND ANDREWS
1824–1904

In *Science*, August, 1911, Professor Charles Baskerville of the College of New York, refers to the experiments of Dr. Andrews in 1868 with a mixture of oxygen and nitrous oxide to produce a non-asphyxial anæsthesia and then says: "Although Andrews published accounts of several cases in which the mixture had produced more satisfactory anæsthesia than the nitrous oxide alone, his observations failed to attract the attention they deserved,"—obviously because the accounts had not been published in a medical journal at all but in a science magazine.

There was very little unemployed time in Dr. Andrews' life. He was a tireless investigator. Recreation was sought in the wilds of nature. His frequent excursions to mountains and forests and rocky islands and lakes and rivers, although they furnished boundless delight and begat an exaltation of spirit in the contemplation of the grandeur and sublimity of nature's works that was very near to worship, had other objects in view. They were used in the observation of countless botanical, zoological and geological facts. The museum of the University of Michigan and the Chicago Academy of Science bear eloquent testimony to this effect.

Dr. Andrews was one of the founders of the Chicago Academy of Science and served for many years as its president. There were coadjutors and noble financial supporters. But through lean and fainting years, through years of discouragement and years of disaster and years of almost complete abandonment, it was Edmund Andrews and, at times he almost alone, who held fast the self-sacrificing courage of love and duty. It is now a noble monument—the repository of matchless treasures; but the noblest thing it can show is the story of its struggle for existence, and in that story the name of Edmund Andrews will forever be the lustrous feature.

As a surgeon Dr. Andrews was always in the forefront of progress. Of mechanical bent he originated a number of orthopedic appliances and other instruments which contributed to the growth and precision of the mechanics of surgery. For many years he was the only surgeon in Chicago who limited his work exclusively to surgery.

He was the first to use Listerism or antisepsis in Chicago. These were the pioneer days of modern surgery. Asepsis had not been thought of. The efforts to prevent surgical sepsis were, of course, faulty and often ineffective, but the fighting investigators struggled on and on toward the truth, and Edmund Andrews struggled as patiently and valiantly as any.

When one does the work of his day so conspicuously well that his brethren of the profession accept him as teacher and guide, the historian can do no less than make respectful obeisance and pass on.

As a teacher of surgery Dr. Andrews was always profoundly respected, yes, and loved, by his students. He was not a fluent speaker—he made no attempt

whatever at grace or elegance of diction,—but his utterances were unfailingly delivered with earnestness and power, and he was a great explainer and entertainer. He was there to teach and he taught well.

He carried no levity into the lecture room, though his bearing was always amiable and kindly and patient, and his words were often supplemented by offhand drawings on the blackboard. He was delightfully deft with the crayon and his illustrations, made with apparent casualness of stroke and without interfering with the consecutiveness of his speech in the smallest detail, contributed entertainingly to the clarity of his expositions. His mouth was as clean as a little girl's. A large heavy bustling personality,—a delightful laughter, a laughter which was not merely vocal and facial but included the shaking participation of his whole body and was full of happiness and mirth and reality. You had to laugh with him whether you saw the joke or not.

But he did not spend much time that way. He was too busy.

In times of quietness he often presented the appearance of preoccupancy of mind, not vacuity but concentrated activity,—the expression of a man whose mind was busy with problems and full of them. He loved problems and lived with them.

In relation to his fellow men, his mind was remarkably free from unfriendliness. Hollister, who had known him intimately since their school-boy days, testifies that he had never heard an unfriendly or a caustic word from Dr. Andrews' lips concerning another member of the profession. He exemplified in his conversations the truth of the scriptural declaration that "Charity suffereth long and is kind." He could hardly fail to be a devout man born as he was into an atmosphere of religion and reared in it. But his religion was very unobtrusive. He merely lived it—that is all.

Dr. Edmund Andrews, scholar, thinker, investigator, who under the guise of honestly seeking information was usually giving more than he received. Modest in demeanor, he was generally regarded as the most learned—at least as one of the most learned,—members of his profession. He left some enduring proofs of his usefulness to the world:

The Museum of the University of Michigan,
The Michigan State Medical Society,
The Chicago Medical College,
Origination of Army Records in the Surgeon General's Office,
Original Studies and Records of Gas-Oxygen Anæsthesia,
The Chicago Academy of Science.

Published by
The Surgical Publishing Company
Chicago, Illinois, U. S. A.