## High Points in the Life of Dr. John Shaw Billings

## By Dr. Thomas Jefferson Griffith

Dr. Billings was a man who, from humble beginnings, attained a position of eminence and great honor, and who for fifty years devoted his life to the good of mankind. He was born April 12, 1838, near Allensville, Switzerland County, Indiana. His father was James Billings of Saratoga, New York. His mother was Abby (Shaw) Billings of Raynham, Massachusetts. The parents were married July 21, 1835.

The elder Billings was possessed of the wanderlust. When John was but two or three years old, the family moved back east, living successively in New York, Connecticut and Rhode Island. They completed the circuit in six years, returning to Allensville, Indiana, when John was about ten. Dr. Billings told an astounding tale of his doings while away from Indiana. He declared that before he was eight years old, he had read the Bible through verse by verse, in addition to the following books: Robinson Crusoe, Pilgrims Progress, The Deer Slayer, The Pathfinder, Harry and Lucy, Marco Paul in the Forests of Maine, Jock O'the Mill, and Plutarchs Lives. He certainly was a precocious lad.

Dr. Philander Sage who lived nearby, told me many things about Dr. Billings. I remember this one. He was invited by other boys of the neighborhood to go with them to pilfer some melons and other fruit from the gardens of their neighbors; he declined to be one of the party. Misjudging him, the boys called him "Lazy John."

He did not seek, or seem to care for the companionship of other boys. He loved books, and his pleasure and recreation consisted in reading them. With the help of a clergyman in the village he learned Latin. Now it was that he developed a desire to go to college. He proposed to surrender his share in the estate, if his father would help him through college. He procured the necessary books, and studied one year. At the age of fourteen, he entered the sub-freshman class of Miami University at Oxford, Ohio, in 1852. Five years later, he received the degree of B.A. ranking second in his class. Before he graduated his parents moved to Oxford and John gave up "bachelors' hall" to live with them. It was said of John's mother that "she was a persistent reader of all kinds of litera-

ture, that she had a *compelling* eye, that she knew what she wanted—and got it." Many of her traits were reflected in her son.

John planned to study medicine, but had to wait a year until he had earned money enough for the medical school. He spent the summer of 1857 travelling with an itinerant showman, who had a collection of lantern slides, and needed someone to give the lectures. John did this satisfactorily. By this means and by tutoring, he earned money enough to enter the Medical College of Ohio at Cincinnati in the fall of 1858. Then followed two of the most exacting and exhausting years of his life. With dire poverty facing him, he had to practice the severest economy. During one winter he lived on seventy-five cents a week, subsisting chiefly on milk and eggs. The hospital was his home, and he cared for the college dissecting room. In 1860 he took his degree. The subject of his graduation thesis was "The Surgical Treatment of Epilepsy." He had a great deal of trouble collecting the data needed for this work. Because of the poor arrangement of the books in most of the libraries he visited, he spent six months in getting the desired information. When the college term opened in the fall of 1860 he was appointed demonstrator of anatomy and served throughout the term. When the Civil War came on, he determined to join the medical corps, and went to Washington in September, 1861. Pending the result of his examination, he became a contract-surgeon, and was detailed to go to the Union Hotel Hospital in Georgetown, D. C. He was commissioned first lieutenant and assistant surgeon on April 16, 1862. It was while stationed at Georgetown that he met Miss Katharine Mary Stevens. They were married on September 3, 1862. The young surgeon was ordered to report for duty in the West Philadelphia Hospital in August of 1862. All hospitals in the east were crowded with wounded men, due to the heavy fighting of the spring and summer months of 1862. The duties at this station lasted to April 1, 1863, when Dr. Billings was ordered to report to the Medical Director of the Army of the Potomac. For nearly all of the rest of the year, he was on active field duty. Chancellorsville was fought during the first week of May, and here he had his first experience of field surgery when he operated under fire just back of the lines.

Gettysburg was fought on the first three days of July. Surgeon Billings was placed in charge of the field hospital of the Second Division of the Fifth Army Corps. He worked all night, and early the next morning moved the hospital about one mile to the rear, where he operated all day. When the Division moved on July 5, he was left in charge of the hospital. The next day he wrote to Mrs. Billings:

I am utterly exhausted, mentally and physically. I have been operating night and day, and am still hard at work. I have been left in charge of 700 wounded, and have got my hands full. Our division lost terribly, over 30 per cent were killed and wounded. I had my left ear just touched with a ball, and Dick's mane was cut in two places.

## On July 9 he wrote:

I am covered with blood, and am tired out almost completely, and can only say that I could lie down and sleep for sixteen hours without stopping. I have been operating all day long, and have got the chief part of the work done in a satisfactory manner.

After spending several weeks at home in Georgetown recovering from nervous tension and physical exhaustion, Dr. Billings was ordered to New York City on August 16. He spent the following six months in various hospitals in or near New York, and was then again ordered to the Army of the Potomac. It was in the latter part of March, 1864, that he went on active field duty once more. During the next four months he lived through the battles of the Wilderness, Cold Harbor, and Petersburg. By July a partial paralysis of his left leg made further field service impossible, and he was granted sick leave on July 26. He went to Washington, secured an extension of his leave, and on August 22 was relieved from field duty and detailed to office duty in Washington with the Medical Director of the Army of the Potomac. On December 27, 1864, he was transferred to the Office of the Surgeon General, where he remained until his retirement thirty-one years later.

It was the great difficulty which he had himself experienced in collecting data for his graduation thesis, that caused him to establish for American physicians a medical library, and, together with this, prepare a comprehensive catalogue and index. His opportunity came when he was in charge of the Surgeon General's Library and he devoted much time to its development. A sum of \$80,000 was made available, and using

this to the best advantage, he increased the library from 600 entries in 1865 to more than 50,000 by 1873. In 1880 Congress provided for printing his monumental work, the *Index Catalogue*, in which he was assisted by Dr. Robert Fletcher. In 1879, Billings and Fletcher published the *Index Medicus*, a monthly guide to current medical literature. Dr. William H. Welch says that "the Index Catalogue is probably the most important contribution yet made to American medicine." Another writer says that the "three great things in the life of Dr. Billings, after the war were the development of the Surgeon General's Library and its catalogue, the planning of the Johns Hopkins Hospital and the Directorship of the New York Public Library."

Still another great thing should go to the credit of Dr. Billings—sanitation. Not only is this true in connection with the construction of hospitals, but in relation to general sanitation as well. He contributed more to the literature of sanitation, than to any other subject. His motto was, "prevent sickness, rather than cure disease." In March 1875, with four other distinguished physicians he was selected by the trustees of the Johns Hopkins Hospital to submit designs for the hospital they were planning to erect, from funds left them by the Baltimore merchant who died December 24, 1873. Dr. Billings' suggestions were deemed best, and for the next thirteen years he served as adviser to the trustees. He made a trip to Europe in their behalf, inspecting hospitals in England and on the Continent, in quest of the newest ideas in hospital construction. The physical arrangements of the new hospital were due almost entirely to him. At the Billings' Memorial Meeting held at the hospital on May 26, 1913. Dr. Henry M. Hurd said that "these plans influenced hospitals in a way unparalleled in the history of hospital construction, and gave a tremendous impetus to better hospitals by directing the attention of medical men, sanitarians, and others to the absolute necessity of certain great essentials, viz. more perfect ventilation and heating, and the prevention of contagion." In 1886, I attended a medical meeting in Ford's Theater Building. Leading the discussion of a disease then prevalent in Texas was Dr. Billings, so let's have a look at the man. He was large, had a fine intellectual face, and a booming voice. His manner in speaking was animated and intensely earnest. He drove every word deep into the minds of his listeners. I was so impressed with his speech that now, after the lapse of forty-eight years, I still remember the subject under discussion—Anthrax.

Dr. Billings was under my observation from 1890 until his retirement from the Army in 1895. I never saw as busy a man as he. When he was not classifying books in the Surgeon General's Library, he was lecturing at Johns Hopkins University, or writing articles for medical journals. Time was more precious to him than gold. While he won high praise for the part he took in the construction of the Johns Hopkins Hospital, equal praise is due him for helping create the staff of medical professors for the University, composed as it was of such men as Osler, Welch, and other brilliant teachers. For fifty years its high standard has been maintained, and today no medical school in the country ranks higher. Before the close of his army life, many honors were bestowed on Dr. Billings. In August 1881 he was invited to give an address before the International Medical Congress to be held in London. He was the first American physician to be so honored, and his address on Our Medical Literature was received with great enthusiasm. The Lancet described him as "tall and largely built," a man of "commanding presence, with a flow of wholesome English, ready wit and humor." In 1884 he went abroad to receive the degree of LL.D. at the celebration of the 300th anniversary of the University of Edinburgh. He sailed again in June 1889 to receive the degree of D.C.L. at Oxford. In 1892 he was called to Dublin to receive the honorary degree of M.D. at the Dublin University tercentenary celebration, and to be made honorary fellow of the Royal College of Surgeons of Ireland.

When he gave up his work at the National Adademy of Science in 1895, he received from physicians of Great Britain and America, at a dinner given in his honor, a silver box containing a check for \$10,000 as a material expression of gratitude for the labor-saving value of his catalogue. A good many things happened to Dr. Billings in the year 1895. He was retired from the Army on October 1, with the rank of Lieut. Colonel and Deputy Surgeon General. He moved to Philadelphia in October, 1895, where he had been lecturing in the Medical University for several years. In December 1895 he was called to New York to assume the directorship of the New

York Public Library, which had recently been created by the consolidation of the Astor, Lenox and Tilden libraries. The work to be done was immense including the erecting of a new building. Dr. Billings had the able assistance of Andrew Carnegie who gave \$5,000,000 to be used in the construction of forty branch library buildings in New York City. After fifteen years of hard work, Dr. Billings had the satisfaction of knowing that he was the director of one of the largest and best arranged libraries in the world.

In 1901-2, Dr. Billings was actively engaged with Dr. Daniel C. Gilman in the establishment and incorporation of the Carnegie Institution of Washington, D. C. He became chairman of the board of trustees in 1903, a position he held until his death. Other trustees with whom he served were ex-presidents Cleveland and Harrison, and ex-Secretary of State Elihu Root. All will admit that Dr. Billings had distinguished associates.

His great ability and worth were recognized by such master minds as Elihu Root and Andrew Carnegie. Many libraries were built with the latter's money on the advice of Dr. Billings. This was a God-send to many small and poor towns like Vevay, Indiana. On the motto of Lea, publisher of medical books, "quae prosunt omnibus," he "hewed to the line."

Dr. John Shaw Billings passed to the greater life on March 11, 1913. The funeral services were held in St. John's Church, Georgetown, D. C., where he had been married fiftyone years before. He was buried with military honors at Arlington on the morning of Friday, March 14, 1913.