

stimulation, but too often the entire medical storehouse needs refitting. Something, best known to the physician himself, we trust, is lacking in the one who treats an obscure case for a day, six days, six weeks, and then does not want an autopsy. If true to himself, true to the demands of his profession, courage will not fail him. In our mental and physical round-up, we must see to it that courage is given a new backbone from time to time.

But, fellow members of the association, not alone as members of this organization may we indulge in self-congratulation, but as members of a profession whose limitation knows no bounds, we may join in felicitation. Neither language, nor creed, nor country fetters our profession's munificent sway. The thoughts of Ehrlich in Frankfurt, of our own Welch or Councilman, of Kitasato in Japan, are correlated. The knife of Mayo in America, of Robson in London, of Kocher in Berne contributes to the relief of suffering in far Cathay. The founts of Lister's genius and Pasteur's divine inspiration bring countless blessings to England, to India, to France and to Africa. What a stimulus it is to realize that, howsoever small the contribution of the humblest of us may be, its impulse will be felt in climes near and far and ages present and remote! What awe can not but overtake us when we consider each heart throb we study entwines us to Harvey of two centuries ago; with every percussion tone reverberates the sound of Laennec's voice of a century; with each vaccine inoculation, the simple observation and reasoning of Jenner to stimulate our question and deductions!

We rejoice together and cherish our history, by the warp and woof of which we are woven to the past. What heritage for us and our children! Dead must be the soul that wearies of communion with the spirits of the past; deep must be its slumber on

which falls the thought of centuries; lethargic its activities that are aroused not by the deeds of heroic men! "Honor and fortune exist to him who always recognizes the neighborhood of the great, always feels himself in the presence of high causes." We worship together our science, devotion to which brings forth character, smotheres egotism, levels pretension, drives out solitude, develops such loftiness of thought which can see that 'against all appearances the nature of things works for truth and right forever.' Of our art, let us see to it that when the final summons comes it can be said of us, "Greater love hath no man than this, that a man lay down his life for his friends."

JOHN H. MUSSER.

PHILADELPHIA, PA.

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NATHAN SMITH DAVIS.

It is the sad duty of this academy to chronicle the death of its oldest member, one of its founders, who during the more active years of his life was one of its ardent workers. Dr. Nathan Smith Davis left this life on June 16, 1904. In his last illness he fully realized the coming change, which he foretold beautifully in one short sentence, 'I am going home.'

Dr. Davis lived a long, active and useful life. He was a man of supreme earnestness and seriousness; of great force of mind and strength of character; of high ideals and simple tastes.

His intense and lifelong sustained motive—or inspiration—to accomplish thoroughly the many useful ends to which he devoted his wonderful activity, left scarcely time for recreation. It left no time or thought for indulgence. His life was too full of purpose to lend much of its strength to self-gratification, nor was there much temptation in his well-ordered course. His chief pleasure was the satisfaction of useful accomplishment, and he found his

recreation in diversity of employment. Rarely, very rarely, do we see such subjugation of the material man to the higher attributes of his being. He led an ideal, normal life on a high moral and mental plane; as he ignored the pleasures of the flesh, so he was also superior to its discomforts, and endured its sufferings with fortitude through many years.

His lithe and vigorous body was the ready servant of his wonderfully well-coordinated mind and imperious will, and this with him meant much, for the demands he made upon his physical endurance were excessive.

His comprehensive and prophetic mental vision foresaw the needs of his profession, and of his community, and was a guide to his remarkable executive faculty. His qualities all combined to make him a pioneer among thinkers, and a general among organizers. It was through his semi-public deeds that he was most widely known—his great powers of mind found here their broadest opportunities, and it is through them that his memory will longest survive. The impress of his individuality was marked wherever his energy found outlet, and his rank was always among the leaders. But his memory's richest heritage is not bound with his triumphs; it lives in the homes of the thousands to whom he ministered in their sufferings, and who felt that in him they had a wise and loyal friend; and again, in the minds and hearts of his many students, whose ideals were shaped by his life and conduct. All who knew him best knew the spirit of kindness that ruled his heart. His private life was as unassuming as his public life was aggressive. Among his friends he was quiet, cordial, not very communicative, but spiced his conversation often with a tempered genial wit.

A brief review of his career will show the richness of his life. His primitive environment in youth and his limited op-

portunities in education throw his successes into strong relief, and accentuate the advantages to a man of an active, earnest mind, simple manners and upright ways.

He was born January 9, 1817, in Chenango County, N. Y., where his father had cleared ground for a farm. His first home was a log cabin, and his earliest realizations were the stern necessities in the struggle of subjugating the forest to man's needs.

His first sorrow was the loss of his mother when seven years of age.

From early youth his mind was bright, active and acquisitive. He attended the district school in winter months and at sixteen was given a year in the Cazanovia seminary. In 1834 he began the study of medicine under Dr. Daniel Clarke, of his native county. He shortly entered the College of Physicians and Surgeons of New York, and graduated January 31, 1837. In the meanwhile he had studied in the office of Dr. Thomas Jackson, of Binghamton. His graduating thesis was characteristic of him. Although still hardly more than a boy in years his selection of subject indicated breadth of understanding and his attitude towards existing opinion was bold and well taken. The subject was 'Animal Temperature,' and in it he took issue with the then existing authoritative view that the animal heat was developed within the lungs, and supported his arguments in refutation by recorded experiments.

In the following years he practised in Vienna, N. Y., and in Binghamton. In the latter town he married a daughter of the Hon. John Parker—the wife who survives him.

In these early years he found time, aside from his professional duties, to further prosecute his medical and surgical studies, and to broaden his field of knowledge in the allied sciences and economics. His mental activity soon gained him distinction. He wrote easily and freely, and several of his

medical articles won prizes. He was soon known throughout the state and became an active and prominent member of the state medical society.

In 1845 Dr. Davis was a prime mover and chairman of a committee to call a national convention of delegates from medical societies and medical schools of the different states to meet in New York. From this developed the American Medical Association, the National Medical Society of our country, in which he justly took great pride, and which in turn revered him as its founder and chief organizer and most hearty supporter.

Through his early work in this broad organization he became yet more widely known.

In 1847 he engaged in practice in New York city and, in his medical alma mater, began his long career as a teacher. Two years later he accepted the chair of physiology and general pathology in Rush Medical College of Chicago. In 1859 the medical department of Lind University—later the Chicago Medical College, and at present the medical department of Northwestern University—was organized with the express object of establishing a *graded course of medical instruction*. At that time no medical college in the country had a graded curriculum and the enterprise in hand was epoch-making. Dr. Davis was invited to take the chair corresponding to the one he held at Rush, which, after endeavoring in vain to persuade his colleagues to commit themselves to the graded system, he accepted, and took his seat in the faculty of the new college, where he remained until the time of his death. During many years he was the chief of the medical department and the dean of the faculty. During the last years of his life he retired from active service, but retained his connection with the school as emeritus dean and professor of the principles and

practice of medicine and clinical medicine.

In supporting this new departure in medical teaching he followed his preconceived ideas. As early as 1843 he had earnestly advocated higher standards of professional qualifications for the practice of medicine in an address before the New York State Medical Society, and this opportunity to put his convictions into practice was eagerly seized, and the steady upbuilding of the new school was a vital part of his life work and that of his colleagues.

Dr. Davis's interests and activities were by no means confined to the field of medicine. He was one of the initiative factors of the Chicago Academy of Sciences, of the Chicago Historical Society, of the Illinois State Microscopical Society, of Northwestern University, and of the Union College of Law, of which faculty he was a member, filling the chair of medical jurisprudence. He was also one of the founders of the Illinois State Medical Society.

During all his life he was a warm friend and a strong supporter of the cause of temperance, and one of the founders of the Washington Home.

In addition to his many duties he was a prolific writer and contributed much with his pen to guide professional thought and mold public opinion. He was for many years editor of the *Northwestern Medical Journal*. He afterwards edited the *Journal of the American Medical Association* from 1883 to 1889, a task arduous in itself, but for which he found time amid the many other calls upon his strength and energies.

In 1887 he took an active part in preparing for the International Medical Congress to be held in Washington, D. C., and was at first secretary general and later president of the executive committee.

None except those with him at that time can realize the enormous amount of work entailed upon him by the many simultaneous duties in his various capacities of medi-

cal practitioner, medical teacher, editor of the *Journal of the American Medical Association* and secretary general of the executive committee of the International Medical Congress. During this severe strain he was stricken with complete right-sided paralysis, from which he fortunately soon recovered, but which left him with a slight weakness of the affected side. This illness, although so serious, was for him only an incident. With his returning strength he again took up his burdens and worked on with energy, patience and success. In this he exemplified his dominating characteristics. Whatever he did was done with all his might, and here we have the secret of his life: it was his strength of character, his physical and mental efficiency, his singleness of purpose, his transcendent altruism that made him a so potent factor in the development of so many of our useful institutions.

With the cessation of his works, and the extinction of the light of his life we have lost an active agent and an unwavering beacon in the upward trend to better things.

FRANK S. JOHNSON.

#### SCIENTIFIC BOOKS.

*Observations and Investigations made at the Blue Hill Meteorological Observatory, Massachusetts, U. S. A., in the Years 1901 and 1902*, under the direction of A. Lawrence Rotch. *Annals of the Astronomical Observatory of Harvard College*, Vol. XLIII., Part III. 4to. 1903. Pp. 115-239. Pls. IV.

The Blue Hill volumes of the *Annals of the Harvard College Observatory* are always sure of a warm welcome at the hands of meteorologists, because of the importance and the high quality of the results which they contain. The present volume is no exception to this general rule. If there be any who do not know what meteorology owes to Mr. Rotch, such persons will find a simple statement of the reason for this great indebtedness in the following words, quoted from the introduction to the volume

before us, which is signed by Mr. Rotch: 'All the expenses of the observatory continue to be paid by the undersigned, except the cost of publishing the investigations and observations.'

The introduction makes fitting mention of the death of Mr. A. E. Sweetland, the youngest member of the Blue Hill staff, whose name has already appeared in the columns of SCIENCE in connection with investigations carried on by him at the observatory. A fire-proof addition to the observatory has been built, containing a library and a storage room for kites, and certain other much-needed additions to the older building have been made. It may be noted, in passing, that the total cost of these additions and alterations amounted to \$7,000, and was paid by Mr. Rotch.

Besides maintaining the routine observations and automatic records at the summit and base stations, the chief investigation carried on at Blue Hill Observatory has been the exploration of the air by means of kites. The observations obtained by means of kites from August, 1894, to February, 1897, were published and discussed in Vol. XLII., Part I., Appendix B, of the *Annals of the Harvard College Observatory*. In the present volume the kite observations, together with the simultaneous ground observations, from March, 1897, to the close of the year 1902, are published in full (Appendix C, by H. H. Clayton), while the discussion of these observations, which is eagerly awaited, is reserved for a later volume. Since December, 1901, kite flights from Blue Hill have been made once a month, when possible, in cooperation with similar ascents of kites and balloons in Europe, carried out under the auspices of the International Committee for Scientific Aeronautics, of which committee Mr. Rotch is the American member. The results of the kite flights made from the deck of a steamer during a trip across the North Atlantic, reference to which has been made in these columns, are given in Table XIV. It will be remembered by readers of this journal that, as the result of his success in flying kites from the steamer on this trip, and previously from a tow-boat