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OF

JOSEPH JANVIER WOODWARD.

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Read before the National Academy, April 22, 1885.

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Dr. Joseph Janvier Woodward, Surgeon and Brevet Lieutenant Colonel U. S. Army, was born in Philadelphia October 30, 1833, and died near that city on the 17th of August, 1884. He was educated at the Philadelphia Central High School, from which he received the degree of A. B. in 1850, and that of A. M. in 1855, when he was honored with the position of valedictorian of his class.

He commenced the study of medicine in the office of Professor George B. Wood, attending lectures at the same time in the University of Pennsylvania, from which he received the degree of M. D. in 1853. He then opened an office for the practice of medicine in Philadelphia, gave private instruction in the use of the microscope and in pathological histology, and was a prominent member of the Pathological Society. At this time, in connection with the late Dr. Charles Bishop, he carried on a large quiz class in connection with the course of instruction in the University of Pennsylvania. He was demonstrator in operative surgery at the University of Pennsylvania; clinical surgical assistant to Professor H. H. Smith, and in charge of the surgical clinic of the University. At the outbreak of the war he at once offered his services to the Government and entered the army as assistant surgeon, his commission dating August 5, 1861. His first service was with the Second Artillery in the Army of the Potomac. May 19, 1862, he was assigned to duty in the Surgeon General’s Office at Washington, in which position he remained until his death. In conjunction with Dr. John H. Brinton, of Philadelphia, he was assigned to the duty of collecting materials for a Medical and Surgical History of the War and for a Military Medical Museum. At the end of the war he was placed in charge of the pension division of the Surgeon General’s Office, of the medical collection of the Army Medical Museum, and of the preparation of the medical portion of the Medical and Surgical History of the War. Soon after his assignment to duty in Washington his atten-
tion was attracted by the results of some experiments in photomicrography made by Dr. William Thomson, now of Philadelphia, who was at that time in charge of one of the Washington hospitals, and appreciating the importance of perfecting this means of obtaining accurate representations of pathological histology he at once took the matter up, and with the assistance of Dr. Edward Curtis, U. S. Army, proceeded to improve the old and to devise new methods for this class of work. This led to the endeavor to secure improved objectives especially adapted to photo-micrographic purposes, and to the use of this process as a means of testing with scientific accuracy the relative merits of different objectives.

His publications of the results obtained by work in this direction gave a powerful stimulus to those engaged in the construction of microscopic objectives, and the great improvements which have been made in these instruments of research during the last twenty years have been due to a very considerable extent to his labors.

The essential features of the photo-micrographic processes used by him or under his direction at the Army Medical Museum were the use of a dark room so arranged that the operator was, so to speak, within his camera, the use of monochromatic light and of lenses specially adapted to it, and the great care and skill with which the dry and water immersion lenses of high power and the means of illumination were adjusted to produce the best possible results.

With the introduction of homogeneous immersion lenses much of the labor previously required became unnecessary, but the patience and skill with which Dr. Woodward adjusted his apparatus so as to produce the best possible results of which it was capable, were unequalled by any of the microscopists of his day.

His contributions to medical and scientific literature were numerous and extensive, as will be seen by the list appended to this sketch. The most important of these are the two volumes of the Medical and Surgical History of the War which he prepared, the reports on cholera and yellow fever in the Army of the United States published in 1867 and 1868, and the series of reports, with photographs, on the application of photo-micrography to test objects and to histological work. In 1873 he was elected a member of the National Academy of Sciences, in which he took a deep interest, and for which, as a member of various committees, he did much valuable work. As a scientific investigator and thinker his especial characteristics were the incessant labor which he devoted to the subjects.
on which he was engaged and his desire to obtain his data at first hand as far as possible. His turn of mind was essentially that of a critic, and his first impulse on hearing of any alleged new fact or observation relating to matters in which he was interested was to doubt, and to attempt to verify it for himself. As a specimen of this class of work reference may be made to his numerous and interesting bibliographical notes contained in the medical volume of the second part of the Medical and Surgical History of the War. He was a clear and logical thinker and took great delight in communicating his views and opinions at all times.

In the circular announcing his death the Surgeon General says:

"With such a record it is needless to speak of his zeal, his ambition, or his devotion to his profession, and especially to the reputation of the corps of which he was so bright an ornament.

"Of a sensitive, highly strung, nervous organization, the confinement, anxiety, and labor to which he was subjected in his attendance upon the late President Garfield during his long illness proved too much for a mind and body already overstrained by incessant labor and precipitated the illness which finally terminated his life.

"At the time of his death Dr. Woodward was a member and ex-President of the American Medical Association, a member and ex-President of the Washington Philosophical Society, a member of the National Academy of Science, of the Association for the Advancement of Science, of the Academy of Natural Sciences of Philadelphia, and of the College of Physicians and Surgeons of Philadelphia. He was an honorary member of several American and foreign scientific, medical, and microscopical societies, and the recipient of many distinguished honors from learned bodies in this country and abroad."
LIST OF THE PUBLICATIONS OF DR. J. J. WOODWARD, U. S. ARMY.

ARRANGED IN ORDER OF DATE.

1858.


Remarks upon the minute anatomy of three cases of cystocarcinoma. Am J. M. Sc., Phila., 1858, n. s. xxxvi, 54.

1859.


1860.


1863.


Hospital gangrene (letter to Prof. Detmold). Am. M. Times, 1863, vi, 179.


Outlines of the chief camp diseases of the United States armies, as observed during the present war. Phila., J. B. Lippincott & Co., 1863, xii, 364, 8vo;
JOSEPH JANVIER WOODWARD.


Circular No. 15, War Department, Surgeon General's Office. 8 pp., 8vo. Washington, September 8, 1863. Sickness and mortality of the army during the first year of the war, with six diagrams.

1865.

On the use of aniline in histological researches, with a method of investigating the histology of the human intestine, and remarks on some of the points to be observed in the study of the diseased intestine in camp fever and diarrhea. Am. J. M. Sc., Phila., 1865, n. s., xlix, 106.


1866.


On photo-micrography with the highest powers, as practiced in the Army Medical Museum. Am. J. Sc., and Arts, N. Haven, 1866, n. s., xlii, 189.


1867.


1868.


1869.


Abstract of lecture on photo-micrography applied to class demonstrations.

301

Further remarks on the new nineteen-band test plate of Nobert and on immersion lenses. Month. Micr. J., Lond., 1869, ii, 289. [See notes in vol. i, 1870, pp. 50 and 103, with regard to omission of diagram belonging to this article.]


1870.


Report on the magnesium and electric lights, as applied to photo-micrography. Surgeon General’s Office, January 5, 1870, 4to., 6 pp., 11 photographs; also reprint, Month. Micr. J., Lond., 1870, iii, 290; also Am. J. Sc. and Arts, N. Haven, 1870, 2 s., xlix, 294; also Brit. J. Photog., Lond., 1870, xvii, 270-282; also J. Franklin Inst., Phila., 1870, lix, 267.

Letter to Mr. Jabez Hogg with regard to Dr. Pigott’s papers on the markings of certain test objects, particularly the Podura scale. Month. Micr. J., Lond., 1870, iii, 324.

Report on the oxy-calcium light as applied to photo-micrography. 4to., 3 pp., 2 photographs. Surgeon General’s Office, 1870; also Reprint Am. J. Sc. and Arts, N. Haven, 1870, 2 s., l., 366; also Month. Micr. J., Lond. 1870, iv, 64.


Report on certain points connected with the histology of minute blood-vessels. 4to., 8 pp., 11 photographs. Surgeon General’s Office, 1870, July 6th; also Reprint Month. Micr. J., Lond., 1870, iv, 205; also Quart. J. Micr. Sc., Lond., 1870, x, 380; also N. Y. M. Record, 1870-71, v, 313.

1871.

Memorandum on the amphipleura pellucida. 4to., 1 p., 2 photographs. Surgeon General’s Office, 1871, Feb’y 1; also Reprint Am. J. Sc. and Arts, N. Haven, 1871, i, 345; also Month. Micr. J., London, 1871, vi, 43.

Memorandum on the surirella gemma. 4to., 1 p., 2 photographs. Surgeon General’s Office, 1871, Feb’y 1; also Reprint Am. J. Sc. and Arts, N. Haven, 1871, i, 347; also Month. Micr. J., Lond., 1871, vi, 100.


Memorandum on the test podura. 4to., 3 pp., 5 photographs. Surgeon General’s Office, Feb’y 22, 1871.

Memorandum on pleurosigma angulatum and pleurosigma formosum. 4to., 4 pp., 8 photos. Surgeon General's Office, June 9, 1871.


Note on the resolution of amphipleura pellucida by a Tolle's immersion ½th. Month. Micr. J., Lond., 1871, vi, 150.

The note accompanying three photographs of degeeria domestica, as seen with Mr. Wenham’s blackground illumination and a power of 1,000 diameters. Month. Micr. J., Lond., 1871, vi, 266.


1872.

Microscopical memoranda for the use of practitioners of medicine. Lens, Chicago, 1872, i, 34, 93, 158, 223.


Four letters to the Surgeon General accompanying photographs of the mosquito, certain parasites, the proboscides of certain flies, and miscellaneous photographs of insects and parts of insects, 8 pp., 4to., 35 photos. Surgeon General’s Office, 1872, Jan. 5, 10, 15, 20.


Note on Dr. Barnard’s remarks on “the examination of Nobert’s nineteenth band.” Month. Micr. J., Lond., 1872, vii, 10.


Remarks on the desirability of reproducing photographs of scientific objects, and especially of magnified microscopical preparations in a permanent


On Webb's test and other fine writing on glass. Lens, Chicago, 1873, ii, 225.

On the structure of cancerous tumors and the mode in which adjacent parts are invaded [1st Toner Lecture]. Smithsonian Miscellaneous Collections, No. 266, 1873, 55 pp., 4to, 74 photo-micrographs; published by the Smithsonian Institution, Wash., 1873; also [rev.] Edinb. M. J., 1874, xx, 444; also Phila. M. Times, 1873-'4, iv, 301; also Atlanta M. and S. J., 1873-'4, xi, 660; also Am. J. M. Sc., Phila., 1874, n. s., lxviii, 219.


Note on the microscopical slides of Dr. Otto Barth, illustration of pathological anatomy. Letter. Med. Record, N. Y., 1874, ix, 381.
Final remarks on immersion apertures (accompanied by the paper of R. Keith): Month. Micr. J., Lond., 1874, xii, 125.


1875.


1876.


Pamphlets issued in connection with the exhibit in the Hospital of the Medical Department U. S. Army, International Exhibition of 1876, viz., (No. 2) Description of the models of hospital cars, 10 pp., 8vo.; (No. 3) Description of the models of hospitals, 22 pp., 8vo.; (No. 4) Description of the models of hospital steam vessels, 12 pp., 8vo.; (No. 9) List of selected microscopical preparations from the Army Medical Museum, 7 pp., 8vo.; (No. 10) Description of the selected specimens from the Medical Section of the Army Medical Museum, 21 pp., 8vo.


The application of photography to micrometry, with special reference to the micrometry of blood in criminal cases. Am. M. Ass., Phila., 1876, xxvii, 303; also reprint Phila. M. Times, 1875–6, vi, 457; also Month. Micr. J., Lond., 1876, xvi, 144.
Typho-malarial fever. Is it a special type of fever? Being remarks introductory to the discussion of the question in the Section of Medicine, International Medical Congress, Phila., 1876. Tr. Internat. M. Cong., Phila., 1876, 305. Reprinted (Gibson Bros., 44 pp., 8vo., Washington, D. C.)


1877.

Dysentery and bacteria. An address delivered before the Society of the Alumni of the Medical Department of the University of Pennsylvania, March 10, 1877 (with the Proceedings of the Alumni Meeting of 1877). Phila., Collins, 1878.


Brief rejoinder to some recent articles by Dr. Roberts Bartholow. Cincin. M. News, 1877, vi, 743.

1878.

Further remarks on a simple device for the illumination of balsam-mounted objects for examination with immersion objectives whose balsam angle is 90° or upwards. J. Roy Micr. Soc., Lond., 1878, i, 246.


1879.


Directions for the use of the test cards for determining the range of vision of recruits, the spectacle glasses and test types for measuring anomalies in the refraction and accommodation of the eye, and the test wools for the detection of color-blindness. Issued to medical officers by the medical depart-
ment of the army. Printed with Circular No. 2, War Department, Surgeon General's Office, 14 pp., 8vo., 1879.


1880.


1881.


