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BIOGRAPHICAL MEMOIR

OF

ALEXIS CASWELL

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BY

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Alexis Caswell.

BIOGRAPHICAL MEMOIR OF ALEXIS CASWELL.*

On the 8th of January, 1877, Rhode Island lost, by death, an accomplished man of science and one of her best citizens. Alexis Caswell was born in Taunton, Mass., on the 29th of January, 1799. His ancestors on the father's side were prosperous farmers, and were among the earliest settlers of Taunton. Thomas Caswell, of the fifth generation preceding, came, according to tradition, from Somersetshire, England. His will was admitted to probate in 1697, only fifty-eight years after the incorporation of Taunton. The grandfather of Alexis married Zibiah White, who was the great-granddaughter of Peregrine White, the first-born of the Pilgrims in America on board the *Mayflower*, November, 1620. Alexis Caswell, after spending his early years upon the farm, was prepared for college at the Bristol Academy, in Taunton. Little is known of his character and attainments at this time; but, if the child is father of the man, he must have been amiable, docile, and full of high ambition. At the age of nineteen he entered Brown University, over which Dr. Messer then presided. His course in college was eminently successful, and at his graduation in 1822 he received the first honors.

From 1822 to 1827 he was connected with Columbian College, Washington, D. C., as tutor or professor of languages, at the same time studying theology under Dr. Stoughton, the president. In the autumn of 1827 he went with Dr. Ira Chase (professor in the Newton Theological Seminary from 1825 to 1843) to Halifax, for the purpose of establishing the Granville Street Baptist Church in that place. His plans were changed in consequence of an invitation which he received from the people to remain among them. He was ordained on the 7th of October, and settled over them as their pastor. Having preached to them acceptably for a year, he received an invitation from the First Baptist Church in Providence, in the summer of 1828, to assist

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the Rev. S. Gano, the pastor of that church. He had been in Providence only a few weeks when he was appointed professor of mathematics and natural philosophy in Brown University. With the exception of the time when he visited Europe, in 1860-1861, he discharged the laborious duties of this office for thirty-five years, to the complete satisfaction of the government and the pupils of the institution. Engaging in its instruction soon after Dr. Wayland's accession to the presidency, he was his strong support throughout an able and vigorous administration. In many respects one was the fitting complement of the other, and respect and confidence were felt equally on each side. In 1840, while Dr. Wayland was absent in Europe, Professor Caswell discharged the duties of president; and, during the last three years of President Wayland's official term, Professor Caswell, under the title of regent, relieved him from all the anxieties of discipline, bringing to this delicate duty qualities of mind and heart which secured good order without alienating the affection of the students.

When Dr. Caswell resigned his professorship in 1863 he was sixty-four years of age, and had fairly earned the leisure and the retirement which are the reward and luxury of old age. But he was still young in the best sense of the word—young in his feelings, in his habits of industry, in his intellectual faculties, in the good constitution which he had inherited from his father (who died in 1851 at the advanced age of ninety-one), and young in his passion to serve his day and generation to the end. Accordingly he engaged in active affairs with a vigor and success which younger men might well have envied. Refreshed by five years, not of repose, but of a change of his intellectual diet, he again obeyed the voice of his Alma Mater, which called him, in 1868, to the presidency of Brown University, Dr. Sears, his predecessor, having been summoned to an urgent and difficult service by the strong voice of patriotism and humanity. Although Dr. Caswell had been moving for a few years outside of the university domain, his heart was always there. He knew, better probably than any one else, the wants, the resources, and aims of the institution; and, notwithstanding that he stood on the brink of threescore years and ten, he brought to his high position the vigor, the freshness, and the hope of youth. Among the

various needs of the university which he pressed upon the attention of the corporation in his annual reports was the establishment of an astronomical observatory, sufficient for the purposes of instruction if not of research.

Soon after leaving the office of president, in 1872, Dr. Caswell was elected into the board of trustees, and in 1875 he was chosen a fellow of the corporation. In 1841 he received the degree of D. D., and in 1865 that of LL. D., both from his own university. For nearly fifty years he had been associated with it, either as student, teacher, president, trustee, or fellow, and in each and all of these relations he had reflected back all the honors which he had received as a favorite son. Earnest, devoted, and generous himself, he had the power and the disposition to enlist others of larger means in the same cause. None of its distinguished children has exceeded him, perhaps none has equaled him, in length of service and fidelity to its sacred trusts.

The special function and the high delight of Dr. Caswell were those of an educator. When he began his profession of teacher he shared the fate of his contemporaries in older and richer universities in a new country. He was responsible for all the instruction given in mathematics and natural philosophy; in fact, he alone represented the scientific side of the institution to which he was attached. Afterwards, a professor of chemistry, and at a much later period professors of natural philosophy or mathematics, were associated with him, so that in 1850 his own duties were restricted to astronomy, from 1851 to 1855 to mathematics and astronomy, and after 1855 to natural philosophy and astronomy. It could not be expected of any man who was required to scatter his energies over a variety of subjects, which in a well appointed university would tax the best efforts of half a dozen professors, that he should have much leisure or disposition for original investigation in one direction. It was enough, and more than enough, for the most laborious and ambitious teacher that he should maintain a high standard of scholarship in the wide field which circumstances forced him to cultivate. Much has been written during the last few years in regard to the endowment of scientific research. But this is a luxury of which no one dreamed in Dr. Caswell's day, and its strongest advocates at the present time are not in agreement as to the best way of

accomplishing the desirable result. Mr. Huxley may be correct in his opinion that a moderate amount of teaching will not check, but stimulate, the zeal of the original explorer; but no one will think that a mind wearied by excessive teaching, distracted by a multiplicity of topics, and prevented from rising in his instruction to the Alpine heights of science by the dullness or indifference of the average student who despairs even of reaching the table-land, is a congenial soil for advancing human knowledge. Under such circumstances, one of two things must happen—either the work of teaching will be neglected or that of original research will be left to men more favorably placed.

It must not be inferred from these remarks that Dr. Caswell was contented to remain stationary. At no time since his scientific life began has it been an easy task even to keep in sight the few who are steadily advancing the outposts of science, and of late it is quite impossible without concentration. Dr. Caswell's predilection was for meteorology and astronomy. During the period of twenty-eight and a half years (from December, 1831, to May, 1860) he made, with few interruptions, a regular series of meteorological observations at the same spot on College Hill, in Providence. These observations, precise as regards temperature and pressure, and including also much information on winds, clouds, moisture, rain, storms, the aurora, &c., have been published in detail in Vol. XII of the "Smithsonian Contributions to Knowledge," and fill 179 quarto pages. Dr. Caswell continued his observations in meteorology with unabated zeal to the end of 1876, covering, in all, the long period of forty-five years. It is to be hoped that the latter portion of the series will be published soon under the same favorable auspices as the former. If it be true, as the Astronomer Royal of Greenwich believes, that meteorology is in too crude a state to claim the rank of a physical science, such labors as those of Dr. Caswell are among the means of making it one. And certainly, at this moment, the interests and hopes involved in the subject are beyond anything which Dr. Caswell could have imagined when he began his work. Dr. Holyoke's meteorological observations in Salem (published in the *Memoirs of this Academy**) began in January, 1786, and con-

*The American Academy of Arts and Sciences, Philadelphia.

tinued to March, 1829. Mr. Hall's observations in Boston (also published in the *Memoirs of the Academy**) embrace a period of forty-nine years, viz., from 1821 to 1865. The observations of Dr. Hale, also made in Boston, between 1817 and 1848, are preserved in the archives of the *Academy** for future publication. These various series, arranged in sequence, may answer the question, What changes has a century brought to the climate of New England? So far as the observations are contemporaneous, they will indicate the amount of influence to be ascribed to local causes or instrumental defects.

In 1858 Dr. Caswell delivered four lectures on astronomy at the Smithsonian Institution in Washington. They were of the highest order of popular instruction, and on that account were thought by Professor Henry worthy of being permanently preserved in his printed report for that year. Whatever may have been or may still be the conflict between science and theology, there is no conflict between science and religion, least of all in Dr. Caswell's mind. He says in his introductory remarks: "The mechanism of the heavens, in proportion as we comprehend more and more of its vastness and seeming complexity, bears witness to the enduring order and harmony of the universe, and points with unerring certainty to the superintending agency of an intelligent and infinite Creator." And again: "We spontaneously pay the tribute of our homage to all great achievements. But in no case is homage more just or more enduring than that which all cultivated minds pay to him who stands as the minister and interpreter of Nature, and makes known to us her laws and her mysteries. Many such adorn the annals of astronomy."

Dr. Caswell joined the American Association for the Advancement of Science at its second meeting, which was held at Cambridge in 1850. Although he made no formal contribution to its proceedings, he was a frequent attendant upon the annual meetings, took part in the discussions, and always gave dignity to its deliberations by his character and his words. In 1855 the Association had its ninth meeting in Providence, and the hospitable reception then given to it and the hearty appreciation felt for its labors were largely due to his influence. The members ex-

*The American Academy of Arts and Sciences, Philadelphia.

pressed their gratitude for this service by electing him as the vice-president for the next meeting, in Montreal; but the death of the president-elect, Professor J. W. Bailey, of West Point, called Dr. Caswell to the chair. At this large representation of the science of the continent (the only meeting which has taken place outside of the limits of the United States) he sustained the credit of his country on a foreign soil by his dignified presence and his manly eloquence, to the great satisfaction of all his associates. At such a time and in such a position Dr. Caswell appeared to great advantage. By his dignity, his address, and his courtesy he was eminently qualified to be a presiding officer; and he was gifted with a fluency, a felicity, and a weight of speech which rose to the requirements of the occasion. At the next meeting of the Association, in Baltimore, the president and vice-president-elect were absent, and every hand was uplifted in favor of placing Dr. Caswell again in the chair. Having been called to preside over two of the most brilliant gatherings of this scientific body, he was expected to discharge the last duty of a retiring president by giving the address at Springfield. After showing that science had an intellectual value far transcending its practical use, he discussed the objects, the opportunities, and the hopes of science in America, drawing his illustrations chiefly from astronomy, partly because it was his favorite study and partly because it had the start of all others in material resources. In this excellent address, admirable in thought, spirit, and style, Dr. Caswell reiterates his conviction that genuine science is not unfriendly to religion. "We participate in no such fear. We wish explicitly to exonerate this Association from all suspicion of undermining, or in any manner weakening, the foundations of that faith which an apostle says was once delivered to the saints. We cannot admit the opinion that any progress in science will ever operate to the disparagement of that devout homage which we all owe to Him in whose hand our breath is, and whose are all our ways. Science, on the contrary, lends its sanction and adds the weight of its authority to the sublime teachers of revelation."

In this connection, two other scientific publications of Dr. Caswell may be mentioned: I. On Zinc as a Covering for Buildings; "American Journal of Science," 1837; II. Review of

Nichol's Architecture of the Heavens; "Christian Review," 1841. Dr. Caswell was elected an Associate Fellow of this Academy* in 1850. He was one of the original members of the National Academy of Sciences. He wrote for that body a memoir of that worthy pioneer in American science, Benjamin Silliman, which has been printed in one of its volumes of Proceedings.

In this retrospect of the life and labors of Dr. Caswell he has been seen almost exclusively in his professional relations as the student and teacher of science. And here his mind took more delight in ranging over a wide field than in dissecting some single flower or tracing the path of a solitary molecule, although that may be a microcosm in itself. He could not have become one of Berkeley's minute philosophers. He was no specialist, though he was never superficial. If he was not himself an original discoverer, he understood and admired the discoveries of others, and led others to do likewise. At one time he taught Butler's Analogy at the university, and with as fresh an enthusiasm as if that alone had been the chosen work of his life. And wherever there was a gap in the means of instruction, he was the person thought to be fitted to fill it. His whole nature revolted at the suggestion of becoming a book-worm or a secluded student. He was emphatically a man of the world, though not of it. He was interested in trade, manufactures, and finance. He was a good citizen, and took an active part in promoting the industrial, intellectual, and moral welfare of his city, his State, and the whole country. His sympathies were deep and generous. Always welcomed in the circles of the refined and educated, he will be no less missed in the homes of the poor and the unfortunate. His heart and mind and strength were liberally expended in the administration of the public charities of the city and State.

Dr. Caswell was an earnest speaker, and a clear, warm, and vigorous writer. To his publications already mentioned may be added: I. ϕ B K oration in 1835. II. Review of Whewell's Bridgewater Treatise; "Christian Review," 1836. III. Article on Emulation; "North American Review," 1836. IV. Address at the funeral of Rev. J. N. Granger, 1857. V. Memoir of John Barstow. VI. Sermon on the Life and Christian Work of Dr. Francis Wayland.

*The American Academy of Arts and Sciences, Philadelphia.

Truly was it said of Dr. Caswell, at his funeral, that nature did much for him, but that grace had done even more. Firm and earnest in his own religious convictions, inflexible in his own peculiar theology, he had no taint of illiberality in his intellect or his heart, ever abounding in that Christian charity which thinketh no evil of any who conscientiously worshiped the same God from a different altar. He had mingled in the affairs of practical life more than usually happens to an academic career, but the purity, the integrity, and the simplicity of his character were superior to its surroundings, and to the end he seemed as much in place in the pulpit as if he had never left the profession of his early choice. There was no austerity in his goodness; hence it attracted those who could not have been driven. Sweet in temper, cheerful in disposition, gentle, affectionate, affable, hospitable, he was happy in his life, and even more happy in his death. After his long day, in which he had not labored in vain, his sun went suddenly down in a cloudless sky. And behold the end of such a man: it is all honor, and affection, and peace. The press, the university, the church, and the State have borne witness to the excellence of his character and the usefulness of his life.