set of abstracts, when the editor remarked that some mistake must have been made in the numbers. On tracing this back to Perrault's book it is found that the abstracter for the original edition of the Philosophical Transactions, and whose abstract was copied by the others, confused the words "vingt quatre" (24) and "quatre vingt" (80), the amounts in the book being given in words and not in numerals. The amount of rainfall on the area selected for study is actually given by Perrault as 224,899,942 "muids" —and not "a little over 280 million" as stated by the abstracter. With this alteration the result given by Perrault—namely, that the run-off is one sixth of the rainfall—is seen to be correct.

In 1686 a book entitled "Traité du Mouvement des Eaux et des autres corps Fluides," by M. Mariotte, was published in Paris. This was twelve years after the appearance of Perrault's book. This work of Mariotte's was "mis en lumière" after the author's death by M. de la Hire, Professor of Mathematics, and, like Mariotte, a Member of the Royal Academy of Sciences of Paris. Mariotte was according to his biographer the first man in France to bring to the study of the science of Physics "un esprit d'observation et de doubt . . . si necessaire à ceux qui interrogent la nature."

In this book the question of the Origin of Springs is taken up in the Second Discourse. After referring to the "author of the book entitled on the Origin of Fountains" and his work, but without any mention of his name, Mariotte sets forth the results of certain measurements of the rainfall about Dijon which he had caused to be made, as well as measurements of the run-off of the Seine taken at the Pont Rouge in Paris. The annual rainfall according to these measurements was about seventeen inches. Taking it as fifteen inches, Mariotte calculated that the run-off was somewhat less than one sixth of the rainfall and that if taken as eighteen inches it would amount to one eighth of the rainfall.

In this way Perrault's work was confirmed by another of that brilliant group of men who were at work in Paris about this time.

The paper read before the Geological Society of America at the Cleveland meeting appears only in the form of an abstract in the Bulletin of the Society but will be printed *in extenso* in the Festband which is being issued by the University of Helsingfors in honor of Professor Sederholm and which is now in press. The present note will serve to correct the statement in both the abstract and in the extended paper which gives to Papin instead of to Perrault the credit for the important discovery made by the latter

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## EDWARD SANDFORD BURGESS

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ALL too few are men of Louis Agassiz type, who combine a devotion to scholarly research with a marked gift for imparting to beginners their own zest for scientific pursuits. Such a teacher was Dr. Edward Sandford Burgess, for thirty years professor and head of the department of biological sciences (and for a time acting president) of Hunter College, New York City. A man of rare charm and unassuming manner, he chose always to elucidate, never to impress; gentle, selfless, kindly, he gave unstintingly of his time and energy to his students and to his chosen fields of work.

Dr. Burgess was not only a scientist; he had a wide and eager knowledge of many subjects and an especially deep appreciation of the finer things in the literature and art of many lands. His special spheres of labor were in botany and anthropology. He was a recognized authority on the genus Aster and on the history of botany, his major publications being a "History of Pre-Clusian Botany" (1902) and "Species and Variations of Biotian Asters" (1906). Among his other published works are: "The Chautauqua Flora" (1877); "Botanical Genera, Tribes and Families," in the Century dictionary, M to Z, 1891; "The Asters of the Northern United States" (with Dr. N. L. Britton, in Britton and Brown's "Illustrated Flora"), 1898; "The Asters of the Southern United States" (in Small's "Southeastern Flora"), 1903; "The Old South Road at Gay Head" (Duke's County, Mass., Historical Society Publications, Vol. 1, No. 4, 1926); a volume of poems.

During later years Dr. Burgess devoted much time to anthropology and taught this subject at Hunter College. Among his unpublished manuscripts are two extensive ones, entitled: "A Look at the Development of Man" and "A Series of Lectures on Anthropology." There are several genealogical and historical researches, especially on Indian lore of Martha's Vineyard.

Professor Burgess was a grandson of Dr. Jacob Burgess, who moved from Berkshire County, Massachusetts, to Silver Creek, New York, in 1811. His father, the Reverend Dr. Chalon Burgess, was long the pastor of the Presbyterian church of this place. His mother was Emma Johnston, daughter of the Reverend Charles Johnston, of Ovid, Seneca County, N. Y. Edward Burgess was born in Little Valley, Cattaraugus County, but his boyhood was spent in Panama, Chautauqua County. He was graduated from the state normal school of Fredonia, and, with distinction, from Hamilton College in 1879. For two years he held a graduate fellowship in Greek at Johns

Hopkins under the eminent Greek scholar, Dr. Gildersleeve. In 1899 he received from Columbia University the degree of doctor of philosophy, and in 1904 from Hamilton College that of doctor of science.

From 1882 to 1895 (when he became professor of natural science at Hunter College) Dr. Burgess taught botany in the Washington, D. C., high schools and from 1880 to 1895 at the Martha's Vineyard summer institute. He was instructor at Johns Hopkins in 1885. He was a member of the Phi Beta Kappa, the American Association for the Advancement of Science, the New York Academy of Sciences, the American Anthropological Association (a founder), the Society of American Folk-lore, the Century Club of New York, the Torrey Botanical Club, of which he was president, 1912–13, the New York Botanical Garden Corporation (a director, 1912–13).

Dr. Burgess's friends will cherish most the memory of him in his Yonkers home, Sweetbriarside. His marriage to Irene S. Hamilton, of Fredonia, N. Y., was one of rare companionship of spirit. Their garden, with its Shakespeare plot, its Wordsworth bed, its Keats corner, its Hellenica, its plants of western New York, its lily pool filled with native and exotic lilies, its dozen varieties of hybrid sweetbriars, its eighty or more different conifers, its wealth of tulips and roses, has been a delight to all flower lovers and is the expression of the lifelong devotion of the owners.

Dr. Burgess was modern in his conceptions of biology, yet from training and conviction he was deeply religious. Of the views of others, who differed, he was very tolerant: "Truth can not contradict itself," he was wont to say. His reverent attitude toward nature is reminiscent of two such different masters as Charles Darwin and Louis Agassiz. More accurately, Dr. Burgess recalls J. S. Henslow, of Cambridge, the wise professor of botany "who knew every branch of science," the beloved mentor with whom Darwin took long walks, until he became known as "the man who walks with Henslow."

A portion of Darwin's tribute to Henslow, as Romanes has pointed out, reflects the character of Darwin, but it is also an excellent likeness of Edward Burgess.

> Nothing could be more simple, cordial, and unpretending than the encouragement which he afforded to all young naturalists. I soon became intimate with him, for he had a remarkable power of making the young feel completely at ease with him; though we were all awe-struck with the amount of his knowledge. Before I saw him, I heard one young man sum up his attainments by simply saying that he knew everything. When I reflect how immediately we felt at perfect ease with a man older, and in every way so immensely our superior, I think it was as much owing to the transparent sincerity of his character as to his kindness of heart; and, perhaps, even still more, to a highly remarkable absence in him of all self-consciousness. One perceived at once that he never thought of his own varied knowledge or clear intellect, but solely on the subject in hand. Another charm, which must have struck every one, was that his manner to old and distinguished persons and to the youngest student was exactly the same: and to all he showed the same winning courtesy. In short, no man could be better informed to win the entire confidence of the young, and to encourage them in their pursuits. It always struck me that his mind could not be even touched by any paltry feeling of vanity, envy, or jealousy. With all this equability of temper and remarkable benevolence, there was no insipidity of character. A man must have been blind not to have perceived that beneath this placid exterior there was a vigorous and determined will. When principle came into play, no power on earth could have turned him one hair's breadth.[1]

Darwin adds, "I owe more than I can express to this excellent man."

In our strenuous era of high pressure research, when beginners emerge from courses in test-tube biology—*à la mode* and labeled "modern"—with a somewhat cynical and suspicious attitude toward Nature in her visible forms, it is perhaps permitted one to reflect upon the passing of the fine art of instilling an appreciation of natural history, and to wonder if youngsters of the future will experience the intellectual high adventure which has been the good fortune of those who have walked with Henslow, Agassiz, Jordan, Dudley, Burgess, Comstock and many another of the past or passing generation, too numerous to name.

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## SCIENTIFIC EVENTS

### THE OXFORD EXPEDITION TO GREENLAND

THE Godthaab district of Greenland has been chosen as the scene of the Oxford University Greenland expedition of 1928, which has been initiated by the Oxford University Exploration Club, and has for its objects the continuation of the biological work begun in the Oxford Arctic expeditions of 1921, 1923 and 1924. A correspondent of the London *Times* writes that this area has been chosen as representing the region (to which the barren lands of Canada belong) where biological surveys have only just passed through their preliminary stages. Here a comparative survey of the wild life and the conditions con-

[1] "Life and Letters of Charles Darwin." Edited by Francis Darwin, Vol. 1, p. 186.