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PROFESSOR N. H. WINCHELL'S SCIENTIFIC ACTIVITY IN THE ACADEMY

By Secretary Harlow Gale

On Prof. Winchell's coming to Minneapolis in September, 1872, at the age of 33 years, called by President Folwell to be State Geologist and Professor of Geology at the University of Minnesota, his first characteristic act was going right out into the geological field and working until driven home by a snow storm on November 11th, the beginning of an unbroken winter. His next equally characteristic act, on feeling his scientific loneliness here, in spite of his zeal in teaching all the sciences then at the University, was suggesting to Dr. A. E. Johnson and a few other physicians with similar scientific hobbies and interests that they form a scientific society.

With further characteristic modesty the youngest charter member of the Academy, though the only professional scientist among this intellectual group of amateurs, kept himself continuously in the background. For 41 years he was the moving spirit, hardest worker, and intellectual center of the little monthly exchanges of scientific ideas at our meetings which now number 353. No material or official motive or reward ever alloyed Prof. Winchell's pure love of science for its own sake. He had the real creative artist's joy in his work, satisfied with the sympathetic appreciation of a few friends, quite irrespective of any material gain, advertising or public notice.

It was also very characteristic of the youngest charter member and the true student of nature that, while the opening presidential address of Dr. Johnson started right out with the large problem, "Did Life Originate by Law?" the modesty of the patient investigator made the first committee's report, in April, 1873, an oral statement "of his observations of the drift, presenting the various theories of the subject, together with his own views." Two months later "the drift was again discussed at considerable length by Messrs. Winchell, Clough, Ames, Gale and Johnson."

After his second summer's studies about his new home had led him over into the Dakotas, he reported at the September meeting in '74:—"an interesting account of what he saw in the Black Hills. He described the Hills as running nearly parallel north and south, flattened on the top in the north, rugged and uneven in the south. He gave an account of the vegetation, which, in the valley, is abundant. Among minerals he found iron and gypsum abundant. He saw no gold and doubted its existence in large quantities. The granite he spoke of as being nearly all of the white feldspar variety and all of its constituents large,—most noticeably the mica. The professor considered the Hills well adapted for habitation." In the following November "Prof. Winchell gave a brief report of some explorations in Freeborn and Mower County. Among other things he referred to his observation of Devonian and Cretaceous rocks, and the existence of the white pine." At the last meeting of this second year of the Academy "Prof. Winchell gave a description of Bear Butte, in which he gave some reasons for believing that the Butte is not trap, properly so called, but more properly belongs to the metamorphic series."

With the opening of 1875 "Prof. Winchell spoke of the order of the rocks which underlie the surface rocks in this vicinity" and also "read an extract from the *Detroit Post* detailing some of the ancient mining operations at Lake Superior." The variety and alertness of his intellectual interests were further shown when he "read a paper on the light in the zenith on the night of May 2d, caused by the burning of the lumber yard of Farnham and Lovejoy." The newspapers began to notice the little meetings of the Academy, as shown in a quarter column account of the July meeting in which "Prof. Winchell furnished an interesting statement concerning the peat bed found in Mower and Fillmore counties last year, and supposed at that time to be coal. It extends over two-thirds of the counties and is on the high, dry land, but exposed in bluffs along the creeks. The peat is formed at a depth of about 40 feet, and is two or three feet in thickness. Above and below it is a drift of clay and gravel unstratified. It is not referable to alluvial deposit. If it were formed from the glacial drift, it is difficult to explain its presence in that locality, as there is drift above and below it." Reports, diagrams, and

samples from two deep wells, one drilled for Col. Clough, then City Engineer, in East Minneapolis and the other sunk in Emmetsburg, Ia., were reported to the Academy by Prof. Winchell and published in the first Bulletin. This also contained his first published paper in the annals of the Academy, "Geological Notes from Early Explorers in the Minnesota Valley" which is an extremely interesting summary from LeSueur's reputed discovery of copper mines on the Blue Earth at the close of the 17th century through the expeditions of Keating, Featherstonhaugh, J. N. Nicollet and Jas. Hall. At the beginning of 1876 occurs his first report on iron ores in Pennsylvania, with reference to the Lake Superior ores as being a lower formation; also "Notes on the Paleontology of the Trenton Limestone in Minn." After the summer of '77 occurred the first presentation to the Academy of the results of his study of the recession of the Falls of St. Anthony, which Dr. A. F. Elliott, the Academy's veteran secretary and the donor of Elliott Hospital, thus records: "Prof. Winchell made some very interesting remarks about the geology of Hennepin County. Two drift periods: oldest is red in color and the later, of a gray color, overlies the red and contains cretaceous deposits. It came from the northwest. On east side of the river no gray drift overlying the red as far east as Stillwater. Red oaks are characteristic of the red drift. The best timber is found where the gray drift abounds. The Falls of St. Anthony began at the beginning of the last glacial period at Fort Snelling about 8,859 years ago."

Professor Winchell's first presidential year of the Academy was marked by his paper on "Darwinism," the Mss. of which was evidently burned, along with other Academy material for a bulletin, in the historic Brackett's Block fire. But its tenor can be anticipated from his resolutions on the death of Darwin in 1883, printed in the second volume of the Bulletin: "In common with the scientific laborers of the civilized world we lament the death of Charles H. Darwin of England, and we wish hereby to express our profound admiration of his scientific labors. His high attainment of success in that sphere in which few men reach fame, and his industrious genius in grouping the facts of animated nature were equalled only by the quiet modesty of his life and the Christian fortitude with which he endured, without resentment,

misrepresentation and calumny. We regard him as one of the few men the world has seen who have been able to lift their vision above the level of the 'common herd' and to recite intelligibly the new truths which they beheld. He lived in England, but he belonged to the world and especially to every English-speaking country." In moving the resolutions "Professor Winchell made some remarks on the character and scope of Darwin's work,—making a comparison between the biological investigations of Darwin and the geological studies of Lyell; while the latter overthrew the old theories of catastrophies and built up on a lasting basis the uniformitarianism of modern geologists, the former labored to bring out the proofs that long eras of time had been necessary to establish the present condition of animal and plant life on the globe."

The retiring presidential address of Prof. Winchell, read Jan. 5, 1880, and forming the closing dozen pages of the first volume of the *Bulletin*, is a most valuable document of the first seven years of the Academy's history, its purposes and benefits. If the whole of this inspiring essay cannot be here reprinted we must at least reproduce his appeal for the cultivation of science, because he himself so manfully and modestly fulfilled his ideal of a real student of science. "Our social welfare is also promoted by an academy of science. Now the word society is many-sided, especially in its broad meaning. But I refer to those daily experiences of man with man, to the mutual interdependence which we as neighbors in a crowded city must admit that we feel, to the waves of feeling, or of local interest, that excite us as a community, and the common pleasures and entertainments that we seek, to our diversions, to our domesticities. Not only may the grander aspects of modern civilization be advanced by the cultivation of science, but these more personal and immediate concerns are influenced and mellowed by her genial light. Science provokes a quick and observing eye. She requires the cool and steady judgment. She skills the hand to its gentlest and nicest touch. She makes us tolerant of opposition and willing to be corrected. She would harmonize our disagreements. She would systematize our efforts. She would elevate our ambitions. She would clarify our thought, she would regulate our pleasures and she would enhance the happiness of our homes. She works in subtle ways, but none

the less effectively. . . . When I appeal to you in behalf of science, I appeal in behalf of truth, for I think true science is the essence of truth. It is that which is known of nature's workings and phenomena. It cannot be science and not be truth. It is that truth which governs our lives from the cradle to the grave, which encircles the universe in its laws, and which will stand when everything else fails."

This broad interest in scientific education was again taken up in a different way a year later, as the presidential address of his second term of 1881, on "The State and Higher Education" (Bulletin Vol. II, pp. 45-62). After an illuminating historical sketch of the struggle for the recognition of science in the university educational systems of England and America, as against classicism and sectarianism, our author voices his own faith in the democracy of the state as follows: "True statesmanship surveys the whole body politic. It foresees and often institutes national enterprises. It watches the external and also the internal influences that move the masses. It takes advantage of the shifting markets for domestic products. It notes the rise and decline of the various industries. It applies stimulants when needed and repression when necessary. In short, the state is an all-pervading, energizing, regulating, far-seeing organization of the people; the culminating expression of the modern democracy. It is this machinery, which in our day is very closely connected with the appliances of modern science, which is not free from the church, but which the church assumes still to direct. Instead, we claim that it is the right and duty of the state itself to look after its own interests, and especially its higher interests, and to take measures to qualify citizens not only to read their ballots, but to discharge the duties of high citizenship. There is no limit to this duty short of the necessity of the state, as has already been admitted. That which constitutes a state—'high-minded men'—is its necessity, and that it is the duty of the state to provide, to the end that its multifarious industry may be under the guidance of the highest statesmanship."

Between these two splendid cultural scientific papers were scattered through the year four papers on the Mound Builders, under the titles of "The Ancient Copper Mines of Isle Royale," "Mounds of the Rock River Valley near La Crescent," and "The Identity of the Mound Builders with the Indians." Prof. Win-

chell's history and bibliography of the mineral deposits of Minnesota, with an enumeration of such minerals as are known to occur in the state, comprise 36 pages at the close of the second volume of the Bulletin and was read in October, 1882. His retiring presidential address in '82 was on a near-home subject, "The Geology of Minneapolis, being a report on the product of the drilling of an artesian well at the Washburn A mill and comparing it with the various geological formations throughout the State."

The fruits of the investigations of the busy state geologist continued to be seen in such occasional papers as "Notice of the Discovery of Lingula and Paradoxides in the Red Quartzites of Minnesota" in Oct., '85, and "Ironbearing Formations of Northeastern Minnesota" in Oct., '87. From a joint excursion of the Geological Society of America and of the A. A. A. S. from their Toronto meeting into the Huronian region northeast of lake Huron resulted the paper in Oct., '89, on "The so-called Huronian rocks in the vicinity of Sudbury, Ontario." A year later appeared "The Eastern Equivalents of the Minnesota Iron Ores."

A pause of six years in Prof. Winchell's otherwise continuous activity in the little meetings of the Academy was ended by his paper in Dec., '96, on "Some Features in the Geology of Northeastern Minnesota," printed in full in his *American Geologist* for July, '97, and by his third period of the presidency of the Academy, that of the years 1897-8. At the following meeting in February he reported on "Glacial Lakes of St. Louis and Nemadji." As the Academy's president he had the honor in Nov., '97, of heading a committee which gave a public reception to Dr. Nansen, the Arctic explorer.

"The Retreat of the Ice Margin Across Minnesota" in Feb., 1901, and a "Review of the Question of the Age of the Fossil Man of Lansing" in Mar., 1903, give but traces of his Academy faithfulness during a period of incomplete records. His paper on "Deep Wells as a Source of Water Supply for Minneapolis" in Feb., 1905, was the beginning of many demands upon his time and expert knowledge in the public agitation for this source of supply for the city instead of a filtration plant for the river water. Most patiently and serenely, amid the often heated de-

bates on this public question, did he go over and over the evidence for the possibilities of an artesian water supply.

With what youthful enthusiasm he would still return from a summer's scientific outing was most delightfully shown on his return from the Lewis and Clark Exposition at Portland, from which he brought two of his own photographs of the Willamette meteorite. This largest meteorite in the United States, 4 feet in height through its cone shape, 10 feet in diameter through its base, and weighing towards 15 tons, interested him most in the details of its peculiar drill-like perforations about the base, which seemed to be due to air friction, and the sponge-like structure of the bottom, which he thought due to the decomposition of some other mineral substances in the iron.

That beneath all this scientific seriousness was a quiet sense of humor was charmingly shown two summers later when he reported a curious accidental deception. On examining a supposed meteoric stone by thin sections he found it a fine grained fragmental rock, with a metallic substance on the outside. As he could not account for this external metallic substance it finally occurred to him that it might be aluminum which had rubbed off from his pocket magnifying glass, as he had carried them together in his pocket. Such proved to be the case, and he then found similar aluminum specks on other stones of his collection. No one could have appreciated such an accidental joke better than he himself.

Fruits of his energetic archaeological work for the Minnesota Historical Society were given to the Academy in 1907 by his able paper on "The Prehistoric Aborigines of Minnesota and their Migrations" and by his paper in May, 1909, on "Extinct Pleistocene Mammals of Minnesota," and on "The Mammoth in Minnesota," illustrated by a newly found tooth. The scientific honesty and accuracy of the archaeologist was also remarkably shown in his highly interesting and original paper of June, 1908, on "Hennepin at the Falls of St. Anthony" (Bulletin Vol. IV, pp. 380-384). After patiently hunting up the facts of the discovery of the falls he sums them up succinctly thus:

"What a setting for some painter to put upon the canvas!

"Two wandering, half-starved Frenchmen portaging an old canoe along the east bank of the river.

"The falls of St. Anthony just above them to the right.

"The foaming rapids just below them.

"A superstitious savage offering a beautiful beaver robe to Oanktehi, displaying it on the branches of an overhanging oak tree.

"The rising sun in the morning sky.

"The scant-forested hills and undulating prairies stretching from both banks into the limitless distance.

"That is the psychological moment that awaits some skilful artist to be portrayed on the canvas. That is the conjunction in one great scene of the most prophetic and momentous elements in the history of Minnesota.

"There is native, original Minnesota in all its untrod magnificence, pregnant with all its potential promise. There is the wild man, its sole occupant, with his feeble energy and superstitious faith.

"Conjoined to these in the same scene is the tread of the first European, with all that his civilization implies. In that footstep is the embodiment of geographic exploration prompted by commerce and Christianity, the intelligence and education of Hennepin contrasted with the degradation of the savage. All the art which has followed after that scene, all the manufactures, the science, all the education, all the improved methods of human livelihood are foreshadowed and concentrated in the discovery of the Falls of St. Anthony. No single individual scene, no event in all our history, carries with it so much of the natural and so much of the possibility of the artificial in our history as the portaging of that canoe round the Falls of St. Anthony by Father Hennepin and his companion Du Gay.

"It is lamentable that in the Capitol of the State, on the wall of the governor's room, is a travesty of this scene—a painting on which the youth of the state are expected to look and from which to draw impressions of the historic discovery of 1680. When I first glanced at that painting I turned my face away in a feeling akin to disgust, and for three years I did not look upon it again. I have recently examined it, in order that I may be able to render a truthful description. As a work of art and fiction it may be worthy of praise, as a historical picture it is a misrepresentation and an abortion."

Professor Winchell's last formal scientific paper was his masterly presentation of "The Iron Ore Ranges of Minnesota,

and their Differences," in June, 1911, which was immediately published under his own supervision as pages 43-68 in the first part of the fifth volume of the Bulletin. With the aid of lantern slide illustrations in the original lecture and of 24 cuts in the published form the veteran geologist of Minnesota showed the nearer relationship of the newly discovered Cuyuna range to the Vermillion range and thus warned against expecting to find the Mesabi ores in the Cuyuna's Archean rocks.

As the Academy approached its 40th birthday Professor Winchell was most devotedly active in arranging the double program of March 4, 1913, with its historical session in President Walker's Art Gallery in the afternoon and the six reviews of the progress of science, held in the evening in our usual meeting place in the director's room of the Public Library building. As he insisted in assigning all the scientific reviews to others and would say nothing of himself in his thorough and charming historical paper on "The Founders of the Academy," the final paper of our beloved last charter member is herewith printed in this memorial. Of what his habitual modesty left out of his own scientific life and works it has been the devoted aim of this foregoing memorial to make some record and appreciation.

But this bare enumeration and slight characterization of Professor Winchell's long series of papers during his 41 years of activity in the Academy by no means give a complete or true picture of his unswerving faithfulness to science. In his many discussions of papers by his colleagues in the subdivisions of geology or in its related fields he unconsciously showed himself to be their most eager hearer, alert learner, and wise counsellor. As he would patiently and intently listen to abstract papers on the structure of the universe, on ions, or kinds of reasoning, to such unfamiliar things as brain cells, over-tones, or ancient glass and pottery, he would show most inspiringly how catholic, generous and democratic is the true scientific nature. No trace of professional narrowness or prejudice was his. A gentle and chivalrous consideration of others, engrafted on his indomitable energy for scientific work, wrought the rare union in Newton Horace Winchell which made us love him deeply as a man and honor him as an important contributor to the advance of human knowledge.

THE FOUNDERS OF THE ACADEMY,*

By N. H. Winchell.

The "Founders of the Academy" may be considered, probably with justice, to have been those whose names are appended in the official record of our charter, in the office of the Secretary of State, St. Paul. They are the following, in the order given below :

A. E. Ames
A. E. Johnson
C. E. Rogers
Charles Simpson
N. H. Winchell
S. C. Gale
W. H. Leonard
M. D. Stoneman
A. F. Elliott
A. W. Williamson
E. W. B. Harvey

There were also two others, elected on or before February 4, 1873, who are recorded as officers of the Academy, whose record goes so near to the commencement that they might fairly be classed with the founders. They are Paris Gibson and O. V. Tousley. They are named, in the record of the charter, as members of the Board of Trustees for the first year, but are not included in the list of charter members.

The charter was filed in the office of the Secretary of State the 14th day of September, 1875. Mr. Gibson is well known as the president of the North Star Woolen Company, of Minneapolis, for many years as a regent of the University, and more recently as United States Senator from Montana. Mr. Tousley was equally well known as an educator, having been for many years the efficient superintendent of the public schools of Minneapolis.

*This paper on "The Founders of the Academy" was Professor Winchell's last contribution, read March 9, 1913, at the 40th Anniversary of the founding of the Minnesota Academy of Science.

Mr. Gibson still resides at Great Falls, Mont. Mr. Tousley died fifteen or more years ago.

Of the founders proper I can give a few items, partly from personal recollection and partly from sketches which have been published. Beginning at the head of the list,

Dr. Alfred Elisha Ames was a citizen of sterling worth and a physician who ranked among the first of his profession. As I recall him he was above medium stature, frank and full of countenance, a pleasant man to meet, and as a member of the Academy, one of the most earnest and anxious for its success and good standing. The demands of his profession were so numerous that he could not find time to attend the meetings with regularity. He contributed to the transactions of the Academy one paper—a list of the mammalia of the state, based on the reports of explorers, and of surveys, from the Mississippi river to the Pacific ocean, and on his own personal knowledge. Dr. Ames was born in Vermont December 13, 1814, and died at Minneapolis September 24, 1874, at the age of 60 years. He was therefore a member of the Academy less than two years. He had laid a preliminary foundation for continued work on the mammals of the northwest, and had he lived to work out what he planned, there is no doubt that the superstructure would have been highly creditable to himself and to the Academy.

Dr. Asa Emery Johnson was not alone one of the founders. He was its father, and he fostered it for many years during its early history and until it acquired sufficient vigor to make its own way in the world—or more correctly until, by impairment of his health and the partial loss of his eyesight, he was obliged to retire. He came to St. Anthony in 1853, two years after Dr. Ames settled in Minneapolis. He was a man of stout build, but not tall. For many years he was like the Great Physician, he went about healing the sick, charging them little or nothing. His acquaintance was co-extensive with the population, and his genial conversation always made him welcome whether in the street or at the fireside. He had a strong mental personality and positive and piercing convictions. He was therefore always an independent thinker and a teacher. When he fell in love with the mycological flora of Minnesota, it was inevitably a complete and whole-souled giving of himself to a new purpose. With his microscope,

his new books and his collection of fungus, he shut himself up in his little office. His trips for collecting frequently took him down the gorge of the Mississippi, passing my home. He rode in a buck-board buggy, and he made it an invariable rule never to make his horse travel except at a walk. His horse acquired a very rapid walking speed, and learned where to stop and when to start without the ceremony of unhitching. His intense application to the microscope, using artificial light, injured his eyesight, and though he did not entirely lose the use of his eyes for several years, he abandoned his microscopic work and thereafter, as his health began to fail, he withdrew more and more within himself and from contact with his friends and neighbors, and but rarely made any allusion to the active affairs in the midst of which he lived. His final sickness was painful and prolonged. He died January 27, 1906, at the age of 81 years. At the meeting of February 6th following, Secretary Gale made appreciative testimony to the life and work of Dr. Johnson, printed in Volume IV of our Bulletins. His contributions to the first and second volumes were numerous and valuable. He was president during six trying years. His last communication was a gift to the museum of 177 species of paleozoic fossils, with duplicates, April 8, 1890.

Dr. C. E. Rogers, when he signed the charter of the Academy, was a promising young physician of Minneapolis, but he did not remain there long, and I have not been able to find any definite information of his whereabouts in later years. I can only recall that he was for a time at Carlton, Minn., where he was in the drug business, and that after a short return to Minneapolis, he went to Cuba and thence to Central America, after which nothing further is known of him. He was one of the first Trustees of the Academy, but so far as our records show he made no contributions to the scientific programs. His name appears as a member of the standing committees for Zoology and Comparative Anatomy and for Conchology for 1873.

Dr. Charles Simpson, when the Academy was organized, was associated with Dr. Johnson in the practice of medicine and had a joint office in the Wensinger Block, corner of Main street and Central avenue, in St. Anthony. He was a young man, and as junior partner with Johnson was guided and aided by him in

his social as well as his professional relations. When the medical department of the University of Minnesota was established Dr. Simpson was one of its faculty. But the demands of his medical practice seem to have been too numerous to warrant a continuance of his relations with the University.

Dr. Simpson was a man of fine physical appearance. He had his degree of doctor of medicine, as I think I remember, from the University of Michigan, and had a good scientific education. It was Drs. Simpson and Rogers who, no doubt inspired by Dr. Johnson, were the messengers who gave notice of the first informal meeting for the purpose of considering the project of organizing the Academy of Natural Sciences. They called at my home on Fifth street S. E., since known as "Starvation Point" among the students of the University. I was not at home but they left notice of the proposed meeting. Dr. Simpson was chairman of the Committee on Museum in 1873 and 1874, a member of that of Geology and Paleontology, and Secretary of that Academy. He did not have much museum to look after, but while regretting that it was impossible "to furnish as many details as the subject properly demands," he made a report at the close of the first year which

In *Geology and Paleontology* comprised "several thousand specimens."

In *Mineralogy and Chemistry* over 350 specimens numbered.

In *Zoology and Comparative Anatomy* he only mentioned "the deer as the best represented mammal in the collection."

In *Archeology and State History*, "about 100 specimens, all told."

In *Entomology*, "between 300 and 400 specimens, of native Lepidoptera, arranged in a glass case."

In *Ornithology*, "but a few specimens of our native birds."

In *Conchology*, "several hundred land and fresh water shells, mostly native to the state."

While at the same time, the listed accumulation of scientific books in the library for the first year, mainly the result of Dr. Ames' correspondence, occupies two pages of titles, the same year Dr. Simpson contributed a paper on "Prerequisites to a Proper Study of Science," printed in our first volume. With the exception that in 1880 his name appears as a member of the

standing committee on Biology and as a Trustee, his activities in the Academy dwindled away. Still, in 1888 he is reported as having been elected a member, his membership evidently having lapsed automatically. For several years Dr. Simpson was a member of the School Board of St. Anthony, prior to the union of the two cities. I have not been able to learn the date of his death, but it was about a year after our 33rd anniversary, which he attended and where he made some remarks concerning the early days of the Academy and especially concerning the assiduous labor of Dr. Johnson on the mycological flora.

Samuel C. Gale was our first vice-president, and was again vice-president in 1877 and 1878. In February, 1883, he was appointed one of a committee (of which Prof. J. A. Dodge was chairman) to investigate the question of pure water supply for Minneapolis, and in 1884 he was one of a committee (of which President A. F. Elliott was chairman) who were instructed to confer with the Trustees of the Athenaeum, with a view to the erection of a joint building for the accommodation of the Academy, the Athenaeum and the Society of Fine Arts.

Mr. Gale, who is still with us, has been always among the prominent and influential as well as enterprising citizens of Minneapolis. He has been a leader in some of the enterprises for which the city of Minneapolis has become celebrated. Coming to the city in 1857, he was soon extensively interested in real estate and insurance and consequently was in touch with all the commercial, social and educational movements that have marked the history of the city during the last fifty years. For many years connected with the Academy, he was also a member of the Library Board and is familiar with the discussions that have arisen as to the relations of the Academy to the Public Library. Mr. Gale once expressed to the writer his admiration of the sturdy virility manifested by the Academy. His aid to the Academy has not been as a participant in its programs, but as an influential friend and adviser. Now in his 87th year, he has the sweet satisfaction of looking back on a long life well spent in earnest usefulness, cheered by a sense of the high regard of his fellow citizens.

Dr. William H. Leonard, one of the first Board of Trustees in 1873, settled in Minneapolis in 1855, having graduated at Yale

Medical School two years before. Hence he was one of the "old guard" who passed through the trying times of the Civil War, in which he served as surgeon of the Fifth Minnesota regiment, the exciting times of the early seventies, when the fate of the falls of St. Anthony hung in the balance, the loud and busy times of the lumber industry, the years of the rivalry between the "twin cities," the expansion of the flour industry and the rapid growth of the northwest in all educational and political influence. In all these things, so far as they came into his life, and that was often, he bore his part with steadfast courage and ability. As chairman of the section of Archeology and Botany he made several reports, which are published in our Bulletin. He was interested in the question of public health and of a pure water supply. He was president in 1883, corresponding secretary in 1884, and trustee again in 1887. He died in Minneapolis April 9, 1907, at the age of 82 years, thus ending a long life filled with public usefulness and with the constant regard and love of his fellow citizens. In the minutes of the Academy is a tribute to his worth, which ends as follows: "His gentle, kindly heart and his alert scientific intellect, in the midst of a busy physician's life, will always be held in affectionate remembrance and civic honor."

Dr. M. D. Stoneman, like Drs. Johnson and Simpson, resided in St. Anthony, having settled there in 1863. He was born in Virginia and graduated at the Pennsylvania College of Physicians and Surgeons in 1838. His death occurred at Minneapolis in March, 1875, at the age of 60 years, but two years after the organization of the Academy. He was made a member of the committees on Mineralogy and Chemistry and of the Museum in 1873, but he never took part in any of the meetings. He had quite a valuable collection of minerals and fossils. The former he gave to the Academy and the latter to the University of Minnesota. Among the fossils the writer found a new species of trilobite, which has been named from the donor *Hathyurus Stonemani*.

Dr. Adolphus F. Elliott was born at Corinna, Maine, in 1836. He was an early settler in Minneapolis, coming here one year after his brother Wyman, the well-known horticulturist, viz.: in 1855. After a long and lucrative medical practice he went to California in poor health. Returning, however, with-

out regaining his health, he died in Minneapolis April 26th, 1901. He willed his property to the University of Minnesota, and this bequest was carried out by his widow. The Elliott Memorial Hospital, of the University of Minnesota, is the product of this fund. (In the Civil War Dr. Elliott served in the 3rd Minnesota regiment. He was promoted from First to Second Lieutenant and after the surrender at Murphreesboro, along with other officers, including the colonel (Lester), he was dismissed from the service.)

As a member of the Academy, he was one of the most active in building up the Museum. He made the first, or very nearly the first, contributions to its cases. He was a member of the Museum Committee in 1874 and chairman of it in 1876, as well as a member of the committees on Mineralogy and on Botany. He served also as secretary in 1877 and 1878, vice-president in 1880, and became president in 1882. He succeeded himself in 1883, 1884, 1885, 1886, 1887, 1888 and 1889, and when he retired permanently the Board of Trustees, under date of January 16, 1890, entered the following preamble and resolutions upon their records:

"Whereas, Dr. A. F. Elliott has now retired from the presidency of the Minnesota Academy of Natural Sciences and from membership in this Board,

"Resolved, That the Board of Trustees recognize in his retirement the loss of a tireless worker, one who at all times and under all circumstances was loyal to the interests of the Academy and eager to advance its work in the community, and one whose enthusiasm in this work commanded the respect of all.

"Resolved, That we extend our thanks as a Board to Dr. Elliott for his efficient labors as president during the past eight years, and that we wish him a speedy and perfect recovery to many years more of work in advancing the interests of the Academy.

"Resolved, That these resolutions be published in the forthcoming proceedings of the Academy."

After this Dr. Elliott contributed to the collections of the Academy some minerals and ores and some photographs of prehistoric articles from California. Thereafter for about ten years, while Dr. Elliott was struggling against disease, we heard but

little of him. When he finally returned to Minneapolis, it was manifest at once how strong an affection he had acquired for the people and the city in which he had spent the most numerous and the most active years of his life. He sought out the friends with whom he had worked in the Academy, recalled the struggles through which they had passed, said a friendly good-bye and gave a final hand-grip. The writer can never forget the cordial greeting which he extended to him as they met on Nicollet avenue, nor the impressive and sad reply that he made to the question: What are you doing now? as he braced himself with his cane—"Just trying to live."

The chief event connected with Dr. Elliott's presidency of the Academy was the institution of measures for the erection of a public building for the combined use of the Athenaeum, the Academy and the Society of Fine Arts. This movement, in which the Academy was joint instigator with the other institutions, was fostered by a committee consisting of President Elliott, T. B. Walker and S. C. Gale, and resulted in the erection of the present Minneapolis Public Library, put up and maintained at the public expense.

A. W. Williamson, at the date of the organization of the Academy, was an instructor in the University, in mathematics, and from a scientific turn of mind went cordially into the project of establishing such an institution. Mr. Williamson's professional appointments have kept him away from the Academy and from the city during many years. In our Volume II is published a learned paper by him prepared when he was Adjunct Professor of Mathematics at Augustana College, Rock Island, Illinois, entitled "Is the Dakota Related to Indo-European Languages?" His leaning toward the study of the Dakota language was derived from his boyhood familiarity with the Sioux Indians, his father, Rev. T. S. Williamson, having been the celebrated missionary to these people in the territorial and early statehood days of Minnesota. This paper, as he says, was a preliminary result of his father's dying request to complete an article he was preparing showing that the Dakotas are of European origin. In bringing the article to a close, among the conclusions which his father dictated to him or had embodied in his manuscript, was one which at that date seems quite remarkable, to the effect that

the Dakotas were the mound builders, not only of Minnesota, but also of the Ohio valley. This early opinion has been fully confirmed by researches carried on along other lines, but illustrates the acumen and carefulness with which the early Minnesota missionaries pursued their studies of the Indian. Mr. Williamson died a few years ago at Seattle, having resigned at Rock Island because of poor health.

E. W. B. Harvey was superintendent of schools for St. Anthony. He left Minneapolis soon after the organization of the Academy, and never took part in any of our meetings. He was a capable man whose pleasant personality made him welcome at our early discussions. He was made the first treasurer of the Academy, and in 1873 he was a member of the Committees of Ornithology and of the Museum, co-operating with Doctors Simpson and Stoneman. I have never heard anything of Mr. Harvey after he left Minneapolis, probably in 1873, and he may be still living.

N. H. Winchell. There remains of the original charter members but one more to speak of, but I must stop. This is not the occasion, and I cannot. The foregoing have passed off the field of action, and they need to be commemorated. But "the poor ye have always with you."