MEMOIR

OF

JARED POTTER KIRTLAND.

1793-1877.

BY

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BIOGRAPHICAL SKETCH OF J. P. KIRTLAND.

"Jared Potter Kirtland, born November 10th, 1793, died December 10th, 1877," is the inscription on the monument which marks the resting place of another of the venerable members of the Academy, whose loss we have recently been called upon to deplore. Between these widely separated dates was lived one of the happiest and most useful lives which has ever fallen to the lot of mortals. The full history of this life must forever remain unwritten, but it becomes my pleasant duty to place on record some of its characteristics and achievements in order that those who in future years shall trace the origin and progress of science in our country shall give due honor to one who was among the most influential of its promoters.

The chief events in the life of Professor Kirtland are briefly as follows:

He was born in Wallingford, Conn., the son of Turhand and Mary Potter Kirtland, and grandson of Dr. Jared Potter, a distinguished physician of Wallingford.

In his childhood he was adopted by his grandfather, becoming a member of his family, and from him his mind received its first guidance toward the studies which he afterward prosecuted. His father was a large stockholder in the Connecticut Land Company, an organization which purchased a considerable portion of the lands held by the State of Connecticut in what was known as the Western Reserve, and in 1797 he was appointed its general agent. In 1803 he removed to Poland, Mahoning County, Ohio, taking with him all his family except Jared, who remained with his grandfather.

From 1807 to 1810 the subject of this memoir pursued a course of study in the Wallingford and Cheshire academies, where he made good progress in the classics and mathematics, and gave proof in all things of a mind of high order. While yet a boy his scientific tastes developed themselves, and he was an indefatigable and acute observer of nature. He also had thus early become an expert in

the cultivation of fruits and flowers, for which his talents had ample scope in the extensive orchards and beautiful garden of Dr. Potter. Of his own choice he now took up the systematic study of botany, and made his first essay in the production of new varities of fruit, by which he afterward became a public benefactor. With the co-operation of his cousins he managed an extensive plantation of white mulberry trees for the rearing of silk-worms; and he there discovered that the female silk-moth secluded from the male could lay fertile eggs, and thus anticipated by half a century the experiments of Siebold and Steenstrup, which resulted in the demonstration of partheno-genesis in insects.

In 1810 Dr. Kirtland was called to Ohio by the state of his father's health, and made the journey on horseback in company with Joshua Stow, of Middletown, Conn. At Lowville, N. Y., they were joined by Alfred Kelly, who subsequently played so important a part in the history of Ohio, then on his way to Cleveland. The journey was full of interest to the young naturalist, and the enthusiasm excited by the thousand objects which attracted his active observation and the acute and original suggestions which they called out were an unceasing source of surprise and enjoyment to his fellow travelers. At Buffalo he had his first introduction to the fish fauna of the lakes, of which all the species were then new to him and many new to science. Not content with acquiring familiarity with their external characteristics, he devoted himself to their careful dissection, and there laid the ground work of his monograph of the fresh-water fishes of the west, published long afterward. At Painesville, Ohio, the party met General Simon Perkins, one of the pioneers in the settlement of the Western Reserve, and already a man of wealth and high consideration. With him young Kirtland went to Warren, and from thence, by another day's journey, to Poland. Here he remained for a year teaching school, and enthusiastically pursuing the study of the new fauna and flora which he found spread out before him. In his father's apiary he took especial interest, and then began a course of observation and experiment upon the culture of bees, which he pursued with undiminished interest for sixty-five years, early becoming a leading authority in the theory and an important contributor to the practice of this useful industry.

In 1811 his grandfather, Dr. Potter, died, bequeathing to him his medical library and a sum of money sufficient to permit him to

attend medical lectures at Edingburgh, Scotland. Returning to Wallingford in order to enter upon the career thus opened to him, he began the study of medicine in the office of Dr. John Andrews, and continued it later in that of Dr. Sylvester Wells, of Hartford.

While pursuing his medical studies he gave much attention to chemistry, for which he was afforded special facilities by Professor Silliman, who, like all who came in contact with him, felt the influence of his personal magnetism, and gladly did what he could to satisfy his insatiable thirst for knowledge.

In 1813 young Kirtland was prepared to enter the medical school of Edingburgh, but the war with Great Britain prevented the accomplishment of his grandfather's wish. The Medical Department of Yale College having just then been established, he entered it, and was the first to matriculate in the list of students. While pursuing his medical studies at Yale he received private instruction in botany from Professor Ives, in mineralogy and geology from Professor Silliman, besides making considerable progress in the science of zoölogy.

At the end of a year of study, too unremitting for even his robust constitution, he was compelled for a time to abandon his books. A few months passed in the fields and woods restored his health, however, and he then entered the medical school of the University of Pennsylvania, at Philadelphia. This city was then, as now, famous for its scientific culture, and he found there abundant occupation for his active mind and such gratification of his scientific tastes as led him ever after to remember his stay there with peculiar pleasure.

In 1815 he returned to New Haven, graduated from the medical department of Yale, and then settled down to practice in Wallingford. For two and a half years he pursued his professional labors here, devoting every moment of unoccupied time to the cultivation of the natural sciences. Plants, flowers, fruit trees, medicinal herbs, minerals, birds, fishes, insects, and shells, all received a share of his attention, and his careful observation brought to light new facts in regard to all.

In 1818 Dr. Kirtland made another journey to Ohio, with the intention of establishing himself there. Having made satisfactory arrangements to that end he returned to the East for his family, but was induced to avail himself of what seemed a specially good opening in his profession, and fixed his place of residence at Durham, Conn.

He continued there five years engaged in active medical practice, but also finding time—which he never wasted—to continue the scientific studies he had pursued with such assiduity at Wallingford. In 1823 his wife and one of his two daughters died, and, prostrated by this bereavement, he yielded to his father's persuasions and transferred his residence to Ohio. Although induced by so sad a cause this step was fraught with blessings to himself and thousands of others, for he not only found a wider field, where his life was crowned with fame and fortune, but his rare and special personal gifts and his great scientific acquirements formed a contribution to the rapidly-developing civilization of the West, of which the value cannot be overestimated. Society was then in its most vigorous, progressive, and yet impressionable stage, and in this society the influence of Dr. Kirtland was felt as an inspiration and a guidance, not alone throughout the community that immediately surrounded him, but over counties and States. There is no question that this change was a sacrifice of his personal scientific reputation. Had he remained at the East his studies would have been focused on fewer subjects; he would perhaps have become a specialist and have left behind him an important monograph to individualize and perpetuate his fame among men. Instead of this he became the teacher of thousands—of doctors, and farmers, and florists, and horticulturists, and naturalists; teaching all of them things of which they would have been ignorant but for him—things that made them better doctors, better farmers, better naturalists, and better men. It is a good thing to be an original investigator and to write learned treatises on abstract scientific subjects; but it is a far better thing to inspire a generation of investigators and teachers, many of whom will write monographs, and all will, in virtue of their inspiration, be careful and thoughtful observers of nature, learning her secrets, and using them to beautify and bless their own and others' lives.

With a personal magnetism that was felt by all who approached him, and to almost all was irresistible, Professor Kirtland communicated to others the enthusiasm and zeal with which he was inspired. The man who came to him with a stolid contempt for book-learning and with no sense of the beautiful as distinct from the profitable left him with higher views and nobler impulses. With an art beyond all art, because it was nature, the clod, the miser, the brute were lured out of themselves and brought to see the world

through the eyes of this magician. With some perhaps his influence was temporary, but with most it was lasting, and with all elevating and happifying. Few men came within the sphere of his enthusiasm, witnessed his restless activity, his thirst for and enjoyment of knowledge, his careful economy of time, his insight into the mysteries of nature; who saw him surrounded by the beautiful things which he had created from materials within the reach of all; the flowers blooming for him as for no other, the fruits blending for him their fairest forms and richest flavors, the very *weeds* and *stones* becoming eloquent and poetical at his beck—could ever go away and look at life and nature with the same eyes as before.

In 1828 Dr. Kirtland was elected the representative of Trumbull county in the Ohio Legislature. Here his voice was heard in advocacy of every good cause and in earnest denunciation of all that in his judgment tended to public or private wrong. One of the most important measures of which he secured the adoption was the new penitentiary system—that is, the substitution of active labor, profitable at the same time to the State and to the convict, for the solitary confinement to which the unfortunate inmates of our prisons had before been condemned. After serving three terms in the Legislature Dr. Kirtland returned to his large medical practice in Poland, where he remained till 1837, when he received and accepted the offer of the professorship of theory and practice of medicine in the Ohio Medical College at Cincinnati. This position he filled with honor and usefulness until 1842.

In 1837 Professor Kirtland was also appointed an assistant on the geological survey of Ohio, then organized under the direction of Professor W. W. Mather. His first summer was devoted to the collection of specimens in all the departments of natural history, with the intention of making them the subjects of careful study and full report. The survey was, however, suspended at the end of the second year, and a large part of the material gathered was thus lost to the State and to science; but a report on the zoölogy of Ohio, which had been prepared by Dr. Kirtland, subsequently published in the second annual report of the survey, contained a nearly complete catalogue of the mammals, birds, reptiles, fishes, and mollusks of the State, with notes upon the different species, which embodied in the briefest possible language many of the results of the original observations made by him through previous years. This catalogue was a most precious gift to the large number of young

naturalists who, like myself, were attempting to gain some knowledge of the zoölogy of the West. Without access to books we groped in the dark—gathering, studying, and comparing—so that the local fauna was well known to us long before the names and relations of the species had been learned. The arrest of the geological survey unfortunately put an end to Dr. Kirtland's work in this connection, and thus greatly disappointed those who were hoping for a continued flow of knowledge from this inexhaustible source.

In preparation for a fuller exposition of the zoölogy of the State Dr. Kirtland had collected a large number of species of birds, fishes, reptiles, and mollusks, and had begun their detailed description. The fishes he found to be least known of all the groups, and to them he gave special attention. He had made drawings of most of the species with his own hand, and both descriptions and figures were subsequently published in the journal of the Boston Society of Natural History. He also studied with much care the large number of species of mollusks found in the State, and made a series of observations on their structure and habits. In this investigation he discovered sexual differences in the *naiades*, and showed that the male and female could be distinguished by the forms of the shells as well as by their internal anatomy. The verity of this important contribution to zoölogy was strenuously denied by many conchologists, but is now universally accepted. Dr. Kirtland had long since made himself a skillful taxidermist, and his collection of birds was the finest in the State, the number and beauty of the specimens attesting at the same time his industry and artistic taste. He had also acquired at great expense one of the finest scientific libraries in the West, and there were few books on his shelves with the contents of which he was not fully and accurately acquainted.

In the same year that he joined the geological corps Dr. Kirtland purchased a fruit farm on the lake shore, a little west of Cleveland, and there built a handsome residence, to which he soon after transferred his family and all his scientific treasures.

In the winter of 1841–2 he gave a course of lectures on "Theory and Practice and Physical Diagnosis" in the Willoughby Medical School, and in 1843, having resigned his position at Cincinnati, he became one of the founders of the Cleveland Medical College, in which he occupied the chair of theory and practice till the close of the session of 1864.

From the time when he first took up his residence in Cleveland till his death Dr. Kirtland was a highly honored and influential member of that community. His country home was beautiful, with flowers from every clime, and his gardens and greenhouses were the admiration of all who beheld them. His farm was also stocked with all the improved varieties of fruit, of many of which he was the originator, and was an arboretum, in which a greater variety of exotic and native trees and shrubs was to be found than on any other private grounds in the State. His city residence was the resort of the most cultivated and intellectual people, and he inspired among these an interest in science which led to the formation in 1845 of the Cleveland Academy of Sciences. Dr. Kirtland was its first and only president, as he continued to hold that office until 1865, when he was still more highly honored by the reorganization of the society and the change of its name to that of Kirtland Society of Natural History. To this society he donated his collections, to which reference has already been made.

The peculiar personal magnetism of the man was shown not only in the interest which he inspired in the subjects he taught to his medical classes in Cleveland and Cincinnati, but also in the fascination he exerted upon the youth of both sexes who came within the magic circle that surrounded him. In every medical class there were always some, and often many who became his private pupils, whom, without compensation, he initiated into the mysteries of taxidermy, or taught the elements of botany and zoölogy, so that they went to their homes to become skillful cultivators of the natural sciences, and with acquirements that often added much to their influence and happiness. So in the cities in which he lived, many of the young men were drawn from the usual occupations and interests of youth to join the ranks of scientific workers. Throughout the West there is now a considerable number of those that have deserved distinction as naturalists who were first attracted to scientific pursuits by the charm which Dr. Kirtland threw around such subjects, and by catching the contagion of his enthusiasm. He was everywhere an active and successful propagandist of his scientific faith, and he won followers and devotees from every rank and condition of life. No better illustration of the irresistible fascination he exerted could be given than that furnished by a recent visit which I made him at his home. In showing me his treasures and novelties he called me into one of the several smaller buildings which were attached to his

residence, and here I found a room the walls of which were lined with shelves, and on these thickly set a great number of stuffed birds still wrapped or tied, showing that they were freshly prepared. On my expressing surprise and admiration at his industry, he disclaimed all credit for the work, and told me it had been done by six young ladies who had formed a volunteer class, to whom he had given lessons, and who had walked twice a week from one to two and a half miles during the summer to practice taxidermy under his supervision.

At various times Dr. Kirtland was the recipient of testimonials of appreciation and esteem from the citizens of the State in which he lived and from those of other States and countries. In 1861 the degree of LL. D. was conferred upon him by Willams College. He was a member of many learned societies, once president of the State Medical Society, and an honored member and officer of several organizations of agriculturists and fruit growers. He was the life-long friend and correspondent of Hon. Marshall P. Wilder, who has, since his death, written an eloquent tribute to his memory in recognition of the services he rendered to agricultural science. Another of his eulogists says: "Of the labors of his long life more more than half were performed for the benefit of the public. The farmers of Ohio have special cause to be grateful to him. He sought out the varieties of fruit best adapted to the climate, and when, after tedious experiments, their value had been demonstrated seeds, slips, and young trees were scattered freely and gratuitously over the country. His social qualities are best summed up in the brief truthful statement that, even in his eighty-second year, he was the spirit and embodiment of youth in the society of both the young and the old, and was the idol of both."

The investigations on zoölogy, by which Dr. Kirtland's fame was most widely extended, were his descriptions of the fishes of Ohio, his discoveries of partheno genesis in insects, and of the distinction of sex in the *Unionidæ*, but these constitute among the least of his claims to honor and grateful remembrance. His great work was that of an educator; and here he was not simply an interesting and magnetic lecturer on medicine, agriculture, and natural sciences, but his whole life was passed in acquiring and imparting knowledge in the broad field of the application of scientific truths to every-day life. His efforts were constantly directed toward beautifying and benefiting the world in which he lived. He not only "caused two

blades of grass to grow where one grew before," but, like some beneficent spirit, he made flowers to bloom and fruits to ripen all along his path in life.

Prof. Kirtland wielded a facile pen, and his contributions to the current literature of the many subjects he investigated are numerous and valuable. All were marked by the originality and the learning of the man. He was also a prompt and voluminous correspondent, and his letters will long be preserved by those who have received them, not only for their beautiful chirography, but for the genial and generous spirit which pervades them, the store of information they contain, and their easy, flowing style.

The personal appearance of Dr. Kirtland was consistent with his character. He was above the medium height, robust and massive in frame, and his noble head attracted attention and admiration wherever seen. His manner was animated, impressive, and cordial, and his conversational powers were such as to delight and instruct all for whom they were exerted; and yet, in his eager thirst for knowledge, he made others talk when they would, and drew from them whatever store of fact or fancy they possessed. In many things he resembled the elder Agassiz, and I shall never forget the occasion when I witnessed their first meeting. They were equally enthusiastic, and just then especially interested in fishes, and the eargerness with which they discussed fins and scales and genera and species communicated itself to all the bystanders.

I have now given a brief and, as I feel, very imperfect sketch of Dr. Kirtland's scientific life and character. It is but justice to him to say that this was not all the man. He was an ardent patriot, a generous and public-spirited citizen—one who shared his ample means freely with all whom he thought deserving of his bounty. His private life was spotless, and he was always an earnest advocate and supporter of good enterprises, a foe to ignorance and vice in every form.

During the war, when sixty-nine years of age, he offered his services to the Governor of Ohio, and for several months acted as examining surgeon for recruits at Columbus and Cleveland. The compensation which he received for this service he devoted to the bounty fund and to the Soldiers' Aid Society of Northern Ohio.

And now, with all I have said, I have left to be told the most attractive and delightful feature in Dr. Kirtland's character. This was his universal and unextinguishable cheerfulness, the result of

an enthusiasm in the pursuit of knowlege and an enjoyment of nature which kept him fresh and green and youthful to the very last. Sorrow and bereavement came to him as to all, but these were received with Christian resignation, and they neither soured his feelings nor chilled his interest in men or things. This constituted his greatest charm to others and the most fruitful source of happiness to himself.

Thus, while I can describe Dr. Kirtland as one of the most remarkable men I have ever met, and can characterize his life as one of the most admirable and useful, I can also say that I think it to have been the happiest of which I have any knowledge. Old age with him was stripped of all its traditional painful attributes. Though venerable in years he was always a boy at heart, and never lost that freshness of feeling and keenness of enjoyment which constitute the peculiar and too often ephemeral charm of youth.

Prof. Kirtland was twice married—in 1815 to Miss Caroline Atwater, of Wallingford, Conn.; in 1825 to Miss Hannah F. Toucey, of Newtown, Conn., whom he outlived several years.

His only child that reached maturity, the daughter of his first wife, now Mrs. Charles Pease, was his constant companion till his death. Mr. and Mrs. Pease, with their children and grandchildren, now occupy the homestead.