

ART. II.—*Botanical Necrology of 1885*; by ASA GRAY.

CHARLES WRIGHT died on the 11th of August, at Wethersfield, Conn., at the home where he was born on the 29th of October, 1811, and where the early as well as the later years of his life were passed. He received his education in the grammar school of his native village and at Yale College,

which he entered in 1831, graduating in 1835. His fondness for botany was developed while he was in college, although, so far as we can learn, he had no teacher. The opportunity of gratifying this predilection in an inviting region may have determined his acceptance, almost immediately after graduation, of an offer to teach in a private family at Natchez, Mississippi. Within a year pecuniary reverses of his employer terminated this engagement. At this time there was a flow of immigration into Texas, then an independent republic; and Mr. Wright, joining in it, in the spring of 1837, made his way from the Mississippi to the Sabine, and over the border, chiefly on foot, botanizing as he went. Making his headquarters for two or three years at a place then called Zarvala, on the Neches, he occupied himself with land-surveying, explored the surrounding country, "learned to dress deer-skins after the manner of the Indians, and to make moccasins and leggins," "became a pretty fair deer-hunter," and inured himself to the various hardships of a frontier life at that period. When the business of surveying fell off he took again to teaching; and, in the year 1844, he opened a botanical correspondence with the present writer, sending an interesting collection of the plants of Eastern Texas to Cambridge. In 1845 he went to Rutersville in Fayette County, and for a year or two he was a teacher in a so-called college at that place, or in private families there and at Austin, devoting all his leisure to his favorite avocation. In the summer of 1847-8 he had an opportunity of carrying his botanical explorations farther south and west. His friend Dr. Veitch, whom he had known in Eastern Texas, raised a company of volunteers for the Mexican war, then going on (Texas having been annexed to the United States), and gave Mr. Wright a position with moderate pay and light duties. This took him to Eagle Pass on the Mexican frontier, where he botanized on both sides of the river. He returned to the north in the autumn of that year, with his botanical collections, and passed the ensuing winter in Connecticut and at Cambridge.

In the spring of 1849, Mr. Wright returned to Texas, and, at the beginning of the summer, with some difficulty obtained leave to accompany the small body of U. S. troops which was sent across the unexplored country from San Antonio to El Paso on the Rio Grande. Notwithstanding some commendatory letters from Washington, no other assistance was afforded than the conveyance of his trunk and collecting paper. He made the whole journey on foot, boarded with one of the messes of the transportation train, and endured many privations and hardships. The return to the seaboard, in autumn, was by a rather more northerly route and under somewhat less

untoward conditions. The interesting collection thus made first opened to our knowledge the botany of the western part of Texas. It was published, as to the Polypetalæ and Compositæ, in the third volume of the Smithsonian Contributions to Knowledge, as *Plantæ Wrightianæ*, part 1, in 1852.

A year and more was then passed in the central portion of Texas, awaiting the opportunity for other distant explorations, supporting himself in part by teaching a small school. At length, in the spring of 1851, he joined the party under Col. Graham, one of the commissioners for surveying and determining the United States and Mexican boundary from the Rio Grande to the Pacific, accepting a position partly as botanist, partly as one of the surveyors, which assured a comfortable maintenance and the wished-for opportunity for botanical exploration in an untouched field. Attached only to Col. Graham's party, he returned with him without reaching farther westward than about the middle of what is now the territory of Arizona, and in the summer of 1852 he returned with his extensive collections to San Antonio, and thence to Saint Louis, to deliver his Cactaceæ to Dr. Engelmann, and with the remainder to Cambridge. These collections were the basis of the second part of *Plantæ Wrightianæ*, published in 1853, and, in connection with those of Dr. Parry, Professor Thurber and Dr. J. M. Bigelow, etc., of the *Botany of the Mexican Boundary Survey*, published in 1859. As Mr. Wright collected more largely than his associate botanists, and divided his collections into sets, his specimens are incorporated into a considerable number of herbaria, at home and abroad, and are the types of many new species and genera. No name is more largely commemorated in the botany of Texas, New Mexico, and Arizona than that of Charles Wright. It is an Acanthaceous genus of this district, of his own discovery, that bears the name of *Carlowrightia*. Surely no botanist ever better earned such scientific remembrance by entire devotion, acute observation, severe exertion, and perseverance under hardship and privation.

Mr. Wright's next expedition was made under more pleasant conditions. It was a long one, around the world, as botanist to the North Pacific Exploring Expedition, fitted out under Captain Ringgold, who was during the cruise succeeded by Commander John Rodgers. After passing the winter of 1852-3 at his home in Connecticut and at Cambridge, he joined this expedition in the spring, and sailed in the U. S. Ship Vincennes from Norfolk, Virginia, on the 11th of June. The collections made when touching at Madeira and Cape Verde were of course unimportant; but at Simon's Bay, just round the Cape of Good Hope, a stay of six weeks resulted in a very considerable collection of about 800 species, within a small

area, the Cape being wonderfully crowded with kinds of plants. The voyage was thence to Sydney and through the Coral Sea to Hongkong, which was reached about the middle of March, 1854. The collection of over 500 species of phænogamous plants which was made during that spring and summer, upon this little island, and supplemented in the spring of 1855, was in part the basis of Bentham's *Flora Honkongensis*. In the autumn of 1854, interesting collections were made on the Bonin and Loo Choo Islands, and later upon the islands between the latter and Japan. Still more extensive and important were the botanical collections made in Japan, especially those of the northern island, although the stay was brief. Also those made in Bering Straits, mainly on Kiene or Arakamtchetchene Island, on the verge of the polar sea, where the scientific members of the expedition passed the month of August and a part of September, 1855. Reaching San Francisco in October, the season being unpropitious for botany, Mr. Wright was detached from the expedition, and came home by way of San Juan del Sur and Nicaragua, botanizing for a few weeks upon an island in the Lake, and thence by way of Greytown to New York.

In the following autumn (of 1856) Mr. Wright began his prolific exploration of the botany of Cuba. Landing at Santiago de Cuba, on the south-eastern part of the island, he passed the winter of 1856-7 and the greater part of the ensuing summer in that nearly virgin district, most hospitably entertained by his countryman Mr. George Bradford, and among the cafetals of the mountains by M. Lescaille, returning home with his rich collections early in the autumn. A year later he revisited Cuba, was again received by his devoted friends, extended his botanical explorations to the northern coast, and also farther westward, exchanging the dense virgin forest for open pine woods, like those of the Atlantic Southern States, stopping at various *hatos* or cattle-farms on his route, but reaching better accommodations at Bayamo, when his kind host, Dr. Don Manuel Yero, assisted him in making some profitable mountain excursions. In the winter and spring of 1861 he was again domiciled with the Lescailles at Monte Verde and at the other coffee-plantations of this kind family; and from thence he was able to extend his herborizations to the eastern coast from Baraçoá to Cape Maysi. The next winter he made his way westward to near the center of the island, making headquarters at the sugar plantation of the hospitable Don Simon de Cardenas, thence visiting the *Ciénaga de Zapata*, a great marshy tract toward the south coast. In early summer he transferred his indefatigable operations to the *Vuelt-abajo*, as it is called, or that part of Cuba westward of Habana, making his home at Balestena, a cattle-farm at the southern base of the

mountains opposite Bahia Honda, where he was long most hospitably entertained by Don Jose Blain and Don F. A. Sauvalle. From thence he pushed his explorations nearly to the southwestern extremity of the island at Cape San Antonio. In the summer of 1864 he came home with his large collections, remaining there and at Cambridge for about a year.

In the autumn of 1865, he went again and for the last time to Cuba, again traversed the *Vuelt-abajo* in various directions, proceeded by steamer to Trinidad and botanised in the mountains behind that town, thence by way of Santiago he revisited the scenes of his earlier explorations and the surviving friends who had efficiently promoted them. The oldest and best of them, the elder Lescaille, was now dead. In the month of July, 1867, our persevering explorer came home.

Mr. Wright's Cuban botanical collections, from time to time distributed into sets, with numbers, were acquired by several of the principal herbaria,—the fullest sets of the Phænogamous and vascular Cryptogamous plants, by the herbarium of Cambridge and by the late Professor Grisebach of Göttingen. Professor Grisebach was in these years engaged with his *Flora of the British West Indies*; so that he gladly undertook the determination of the plants of Cuba. They were accordingly mainly published in Grisebach's two papers, *Plantæ Wrightianæ e Cuba Orientali*, in the *Memoirs of the American Academy of Arts and Sciences*, 1860 and 1862, and in his *Catalogus Plantarum Cubensium exhibens collectionem Wrightianam aliasque minores ex Insula Cuba missas*, an 8vo. volume, published at Leipsic in 1866. The latter work enumerates the Ferns and their allies: but those for the earlier part were published in 1860 by Professor Eaton, in his *Filices Wrightianæ et Fendlerianæ*, a paper in the eighth volume of the *Memoirs of the American Academy*. The later collections are incompletely published in the *Flora Cubana*, a volume issued by F. A. Sauvalle at Habana, in 1873 and later,—a revision of Grisebach's *Catalogue* (without the references, but with Spanish vernacular names attached) which was made by Mr. Wright, who added descriptions of a good many new species. The only other direct publication by Mr. Wright is his *Notes on Jussiaea*, in the tenth volume of the *Linnæan Society's Journal*. As to the lower Cryptogams, Mr. Wright's very rich collections were distributed in sets and published by specialists; the *Fungi* by Berkeley and the late Dr. Curtis; the *Musci*, by the late Mr. Sullivant, the *Lichenes*, by Professor Tuckerman in large part, and certain tribes quite recently by Müller of Geneva. So Mr. Wright's name is deeply impressed upon the botany of the Queen of the Antilles.

There was a prospect that he might do some good work for the botany of San Domingo. For in 1871, a Government ves-

sel was sent to make some exploration of that Island, and Mr. Wright went with it. It was in winter, the dry season, and the excursion across the country was hurried and unsatisfactory; so the small collection made in this, his last distant botanizing, was not of much account.

Mr. Wright's botanizing days were now essentially over. He made, indeed, a visit to the upper part of Georgia in the spring of 1875. But this was mainly for recuperation from the effects of a transient illness, and for seeing again a relative and companion of his youth from whom he had long been separated. A large part of several years was passed at Cambridge, taking a part of the work of the Gray Herbarium; and one winter was passed at the Bussey Institution, in aiding his associate of the South Pacific cruise, Professor Storer. Of late there fell to him the principal charge of the family at Wethersfield, consisting of a brother who had become an invalid, and of two sisters in feeble health, all unmarried and ageing serenely together. By degrees his own strength was sapped by some organic disease of the heart, which had given him serious warning; and on the eleventh of August he suddenly succumbed, while making his usual round at evening to look after the domestic animals of the homestead. Not returning when expected, he was sought for: the body was found as if in quiet repose, but the spirit had departed.

Mr. Wright was in person of low stature and well-knit frame, hardy rather than strong, scrupulously temperate, a man of simple ways, always modest and unpretending, but direct and downright in expression, most amiable, trusty, and religious. He accomplished a great amount of useful and excellent work for botany in the pure and simple love of it; and his memory is held in honorable and grateful remembrance by his surviving associates.

GEORGE W. CLINTON died, at Albany, on the 7th of September last, in the 78th year of his age. He was the son of DeWitt Clinton, one of the most distinguished governors, and the grand-nephew of George Clinton, the first governor of the State of New York. He was born on the 13th of April, 1807, whether in the city of New York or in the home on Long Island is uncertain; he became a student in Albany Academy in the year 1816, when his father entered upon his first tenure of office as governor, entered Hamilton College in 1821, was graduated in 1825, was led by his early scientific tastes to the study of medicine, which he pursued for a year or two. At least he attended two courses of lectures at the then flourishing country medical school at Fairfield, N. Y. There his acquaintance with Professor James Hadley further developed his

fondness for chemistry and botany, as it did that of the writer of this notice a few years afterward. He also came under the instruction or companionship of Dr. Lewis C. Beck, a younger brother of his medical preceptor Dr. T. Romeyn Beck, attended a course of private lectures on Botany given by Dr. Wm. Tully, entered into correspondence with Rafinesque, Torrey, etc., and so bid fair to give himself to scientific studies, as we may suppose with the approval of his father, who, it is well known, had a decided scientific bent. But Governor Clinton's death in February, 1828, wrought a change in his prospects and in the course of his life. Acting upon the advice of his father's friend, Ambrose Spencer, the distinguished Chief Justice of the State, he took up the study of law, attended the law lectures of Judge Gould at Litchfield, Connecticut, and continued his studies at Canandaigua, N. Y., in the office of John C. Spencer, whose daughter he married. Admitted to the bar in 1831, he established himself at Buffalo in 1836, and practiced his profession most acceptably at the bar until the year 1854, when he became judge of the Superior Court of that city. This honorable position he continued to hold with entire approbation until January, 1878, when he retired under the provision of the constitution upon attaining the age of 70 years. Then he resumed the practice of the law for two or three years; but at length he took up his residence in Albany, partly for the more convenient rendering of his service as a Regent of the University of the State, and its Vice Chancellor, but mainly for investigating and editing the papers and writings of his great uncle George Clinton. On the afternoon of the 7th of September he took an accustomed walk in the Rural Cemetery of Albany, and there he died, probably quite instantaneously; for when his body was found two or three hours later, some unwithered sprays of White Melilot, which he had gathered, were still clasped in his hand.

Judge Clinton's professional life need not here be considered. I did not know him, but knew of him, as a botanist in his younger days. About the year 1860, after buying a botanical book for his daughter, the turning over its pages revived an almost forgotten delight; and when his attention was again given to the flowers he had long neglected, we soon came into correspondence. "I might have become a respectable naturalist," he writes, "but was torn from it in my youth. . . . To become a botanist is now hopeless; I am, and must remain, a mere collector. But then I collect for my friends and for the Buffalo Society of the Natural Sciences. If I can please my friends and help the Society, it pleases me. I want it to succeed. Money I cannot give it, and I give it all I can, the benefit of my example and pleasant labors." An instructive and

pleasant, and on his part a sprightly correspondence it has been ; and most ardent and successful were his efforts in the development of the Society of Natural Sciences over which he presided, and especially of its herbarium which he founded. In the spring of 1864 he wrote: "To-morrow I believe I shall be able to mail you my Preliminary List of the Plants of Buffalo. And I demand that, immediately upon its reception, you write me, saying 'pretty well for you.' I do feel gratified that I have at last made the miteiest mite of a contribution to science. I know how extremely minute it is. I would not be so exacting but for the fact that my letter-book is just full, and I want to commence a new one with a letter from you, I mean with a note from you: a letter is too ambitious."

As this modest Preliminary List exemplifies the beginning, so the full and critically prepared Catalogue of the Native and Naturalized Plants of the City of Buffalo and its Vicinity (pp. 215), published in 1882-3, marks the conclusion and shows the fruits of Judge Clinton's work upon the flora of the district around Buffalo. This Catalogue was, indeed, prepared and published by his near friend and associate, Mr. Day, with a thoroughness and judgment which have been much commended. But the collection and elaboration of the materials, the critical determination of the species, and the preparation of the "Clinton Herbarium," as it is now appropriately called, were essentially his own work in the *horæ subsecivæ* of a busy professional life. If during middle life, and while making his way in his chosen vocation he abandoned his early scientific avocation, he took it up again when he had achieved a position which allowed some well-earned leisure, and he pursued it with an added zeal and energy and acumen, which should give his name a place among the botanical worthies,—to be remembered after those who knew and appreciated and loved him have passed away. A little *Scirpus* specifically bears his name, but I never see the modest liliaceous plant of our northern woods, called *Clintonia* in honor of the father, without associating it with the son.

Judge Clinton's contributions to the literature of the legal profession consisted mainly of his Digest of the Decisions of the Law and Equity Courts of the State of New York, in three stout volumes. But he was a not unfrequent and a fascinating writer in the newspapers of the city, an occasional lecturer upon historical as well as scientific topics, and an organizer or promoter of every good civic work. He was a person of marked and distinct individuality. It has been said of him that "he was not like anybody else, did not look like anybody else, and did not talk like anybody else." But his ways and his conversation were peculiarly winning and delightful.

Of a rather large family of children, four survive, two of them sons, and a goodly number of grandchildren.

EDMOND BOISSIER died on the 25th of September, at his country residence in Canton Vaud, Switzerland, at the age of seventy-five years and three months. Having known him personally almost from the beginning of his botanical career, which has been so honorable and distinguished, it is a melancholy satisfaction, as well as duty, to pay this passing tribute to his memory.

Boissier came from one of those worthy families which were lost to France and gained to Geneva by the revocation of the Edict of Nantes,—a family that has proved its talents and high character in more than one of its members. Madame the Countess de Gasparin is a sister, next to him in age, and the two had their education very much in common. He was born at Geneva, May 25, 1810, brought up and educated there, except that the summers were passed at his father's place at Valeyres, which he in time inherited, and where his life was closed. From his youth he was fond of natural history and of travel. It was not in his disposition, nor of the Genevese spirit of that day, to lead an aimless life; so, when he came to choose what may be called his profession, it was natural that, at Geneva, in the days of the elder De Candolle, he took to botany. He showed his great good sense by his early judicious choice of a field and by his unbroken devotion to it. To the Mediterranean region, to Southern Spain, and the Orient most of his work relates. After a year or two of careful preparation he went to Spain, in 1837, explored especially Granada and the eastern Pyrenees, and between 1839 and 1845 brought out his *Voyage Botanique dans le midi de l'Espagne*, in two large quarto volumes, the first of narrative and plates, 180 in number, the second of descriptive matter relating to the Granadan flora. Among the species he brought to light was the *Abies Pinsapo*, the beautiful fir-tree now so well known in cultivation. His narrative, besides its botanical interest, is charming reading.

In 1842, after his marriage to his cousin, of the de la Rive family, he traveled with his wife in Greece, Anatolia, Syria, and Egypt. It was to his dear companion that he dedicated two of their joint discoveries, *Omphalodes Lucilix* and *Chionodoxa Lucilix*. In 1849 he experienced the great sorrow of his life in her death from typhoid fever, during a second journey in the south of Spain. Between 1842 and 1854 he published the first series of his *Diagnoses Plantarum Orientalium Novarum*, filling two volumes, and in 1855 the second series of almost equal extent; in 1848 he completed his monograph of the *Plumbaginaceæ*; in 1862 he promptly finished his conscientious elaboration of the great genus *Euphorbia* for DeCan-

dolle's Prodrômus, and in 1866 brought out the *Icones Euphorbiarum*, of 120 folio plates from outline drawings by Heyland. In 1861 he made a trip to Norway with his associate, Reuter. Not to mention other journeys, he was again in Spain and adjacent countries in 1877, and lastly, in 1881, his eighth visit,—then in wretched health. Passing by scattered papers of his, we come to his great work, the *Flora Orientalis*, in five octavo volumes. It comprehends Greece and Turkey up to Dalmatia and the Balkans; the Crimea; Egypt up to the first cataracts; Northern Arabia down to the tropical line; Asia Minor, Armenia, Syria, and Mesopotamia; Turkestan up to 45° of latitude; Persia, Afghanistan, and Beloochistan—that is, up to the borders of India. The first volume was published in 1867; the fifth, in 1884, brings the work down to its conclusion with the Pteridophytes; and the manuscript for a supplementary volume, for recent discoveries and some re-elaboration, was about half finished when he laid down his pen under an attack seemingly no worse than the many he had recovered from, but which now terminated his earthly life.

It was a noble life, shadowed by an early bereavement, and in later years worn by painful disease,—the manly life of one who lived simply and wrought industriously where many others with his independent fortune would have lived idly and luxuriously; and he was no less a loyal and public-spirited citizen. Upon an occasion when, long ago, we met him at Geneva, he had no time for botanical parlance, for he was doing duty in the ranks of the federal army. Later, at a time of commotion at Geneva, he helped to quell a revolutionary riot, and received a painful bayonet wound in the service. True to his ancestry, he was a devoted Protestant Christian, a trusted member of the synod of the Free Church in Canton Vaud, where he lived when not in winter residence at Geneva, and where his assiduous attentions to the poor and the sick will be remembered. He was a man of fine presence, and till past middle life of much bodily vigor. As a botanist he gave himself to systematic work only, for which he had a fine tact, and, like the school in which he was bred, perhaps a faculty for excessive discrimination. No man living knew the Europeo-Caucasian plants so well, or could describe them better; and his herbarium must be, with possibly one rival, the most extensive and valuable private collection in Europe. He loved living flowers as well, and rejoiced in his choice conservatory collections at Rivage, on the shores of the Leman, and in his well-stocked rock-works of alpine plants which adorn his grounds at Valeyres.

A charming biographical notice by one who knew him well through his whole life, M. de Candolle, is contained in the Archives des Sciences of the Bibliothèque Universelle de Genève for October last.

JOHANNES AUGUST CHRISTIAN ROEPER died on the 17th of March, 1884, at the age of eighty-four. He had been for some time the oldest botanist we know of, at least the oldest botanical author; for his first work, a monograph of the German species of *Euphorbia*, was published in 1824. He was director of the Botanic Garden at Basle in 1828, when he published his classical paper *De Organis Plantarum*, and he may have been so in 1826, when he contributed to Seringe's *Mélanges Botaniques* his paper on the nature of flowers and of inflorescences, which first put the latter upon a scientific basis and essentially established the present nomenclature. He was botanical professor there in 1830, when he published his tract *De Floribus et Affinitatibus Balsaminearum*. In these essays he gave the promise of being one of the foremost morphological botanists of the age. Some time before the year 1840 he was translated to Rostock, where he held the botanical professorship for more than forty years, but without fulfilling the promise of his youth by additional contributions to the science of any considerable importance. There are, however, some articles from him in the *Botanische Zeitung*, and other German periodicals, the latest in the year 1859. In 1851 he was chosen a Foreign Member of the Linnean Society of London. We find no record of the place or time of his nativity, but we infer from a statement in the preface of his work on *Euphorbia*, which was published at Göttingen, that he was German, and not Swiss. He is said to have been most amiable, and of deep religious convictions.