

Dr Hugh Francis Clarke Cleghorn. By Professor
M'Intosh, St Andrews.

(Read July 1, 1895.)

Dr Cleghorn was descended from an old Fife family, his grandfather having been Professor of Civil and Natural History in the University of St Andrews, and was born in Madras on the 9th August 1820, his father being then Administrator-General in the Supreme Court. He was sent home in 1824, and resided at the family estate of Stravithie, near St Andrews, till he was twelve years of age. As a boy he was trained to rural pursuits, and rendered familiar with agricultural routine. These early lessons amidst the fine woods of Stravithie, then haunted by the roe-deer and wild-duck, seemed to have laid the foundation for the love of flowers, shrubs, and trees that in after-life became so pronounced. He was sent to the High School of Edinburgh, which he attended for two years—having for school-fellows the brothers Philip and Robert Maclagan, William Nelson (afterwards the publisher), and the Rev. Prof. Milligan, late of Aberdeen.

Leaving the High School, he entered the University of St Andrews, where, besides the ordinary classes, he had the privilege of attending a short course of lectures by Edward Forbes on star-fishes, before the publication of his classic work on that subject. After studying in the Arts classes for four years, he was apprenticed in 1837 as a pupil of the distinguished Edinburgh surgeon, Professor Syme, for five years, holding, however, during the fifth year, the office of House-Surgeon in the Edinburgh Infirmary. During his career in Edinburgh, botany, then under the charge of Prof. Graham, formed a favourite study, and laid a firm hold on the young surgeon—one of the numerous instances of the brotherhood that from earliest times has always subsisted between medicine and biology.

Having graduated at the University of Edinburgh in 1841, and obtained an appointment in India in 1842, he proceeded, at the age of twenty-two, by a sailing-ship to Madras—the voyage then occupying three months. Landing in December, he was attached to the Madras General Hospital, to study Indian diseases, and

thereafter, for three or four years, led a life of constant marching and counter-marching with different regiments. He thus obtained many opportunities both of learning the native language and of extending his botanical knowledge, which, originally fostered by a diligent use of the Edinburgh Botanic Garden, now began to bear fruit. His other duties consisted of the superintendence of a Jail and the practice of vaccination, besides preparing a collection of native raw produce for the local museum. Following out a suggestion which he received from Sir William Hooker, he was in the habit of studying a few plants daily, and thus acquired an extensive knowledge of the medical and economic plants of India. He was further encouraged by letters from Sir Robert Christison, with notes of *inquirenda* and *desiderata* relating to Indian drugs, such as gamboge and chiretta.

His botanical tendencies, indeed, even then attracted considerable notice, especially his observations on the destruction of the forests, and he was appointed on the Mysore Commission, chiefly in connection with this subject. The labours entailed on Dr Cleghorn at this time, however, told on his health, and, early in 1848, sick of Mysore fever, he was sent home. The voyage proved disastrous, for the ship was totally dismasted, lost five of her able-bodied seamen, and the passengers were with difficulty landed—without either luggage or money—at Cape Town. He reached England at the end of June, but was still in weak health, for an attack of pleurisy with cough had followed the Mysore fever. He recruited by botanising in Devonshire; and thereafter, having attended the meeting of the British Association in Edinburgh in 1850, he was appointed, with other eminent men, to report upon tropical forests, and the influence which they exerted on the climate and the resources of the country. Dr Cleghorn, who drew up this exhaustive report, had, indeed, early perceived the immense importance of the tropical forests. He had observed that, as the population spread out, the people were tempted to invade the forests and cultivate within them. More than thirty years ago, so impressed was he by the results of what was known as the “Kumri” cultivation, that he was instrumental in getting orders issued by the Government to stop the wasteful system in Mysore. As Sir Dietrich Brandis and Sir William Muir so clearly

pointed out* some years ago, he was just the man who could best carry out forestry measures amongst the people of India—without appearing tyrannical. “He was,” says his colleague, Sir Dietrich Brandis, “known to be a true friend to the natives, and had made himself familiar with their modes of life and systems of husbandry. As a medical man his name was also widely known, and he had acquired much influence amongst the native population; and, indeed, Dr Cleghorn’s single-minded desire to promote the welfare of the people had become evident, not only to the natives, but also to leading Government officials in Madras, and the confidence they placed in him was the secret of his subsequent success in this important matter.” †

About this time Dr Cleghorn contemplated retiring from the service, and, indeed, his papers were drawn up, when he met Prof. Forbes Royle, of King’s College, London, who asked and obtained his aid in preparing a Catalogue of the Raw Products in the great Exhibition of 1851, a task which occupied him ninety days. Forbes Royle was very thankful for the valuable help given him by the young Indian surgeon, for his own health had become somewhat feeble. He, moreover, gave him letters to the India Office, to Sir Henry Pottinger, Governor of Madras, and to others. This, and an improvement in health, led to Dr Cleghorn’s return to India in 1851, and he lost no time in calling on the Governor of Madras, who took a deep interest in him. He was then given orders to proceed with a wing of a Queen’s regiment to Trichinopoly; but he had only been there three weeks when he was recalled, and offered the post of Professor of Botany and Materia Medica in Madras. Shortly after settling in this congenial office, he was also put in charge of a number of young forest-officers, and no one with greater aptitude could have been selected, for he was not only familiar with Indian life and its dangers, but had always been characterised by his kindly interest in young men, and still more by his high moral tone and his strictly temperate habits. Thus his income was increased and his botanical tastes were given free play.

* Royal Scottish Arboricultural Society, 7th Aug. 1888; *Trans.*, *ibid.*, xii. pp. 87–93.

† Sir Dietrich Brandis, *Trans. Scot. Arboric. Soc.*, xii. p. 90. A generous tribute to his fellow-labourer, Dr Cleghorn.

For some years he laboured in Madras in these offices, and also acquired a fair practice in the city, in addition to carrying on the duties of Port and Marine Surgeon, and afterwards of District Surgeon of St Thomé. But this quiet life was by-and-by broken. In 1855 he received an invitation to Government House, and found that, besides Lord Harris, then Governor of Madras, the only other person present was Sir Arthur Cotton. Before leaving, Lord Harris asked him to look at a bundle of papers connected with public works, especially railways, and explained that one of their difficulties was to get wood for sleepers, adding that Sir Walter Elliot had said he was the best man to consult. After some further conversation about a forest department, and the changes that would be necessary in Dr Cleghorn's official position, the latter left, saying that he would think over the matter for a week, as he was doubtful where he could get assistance. He consulted Sir Walter Elliot, a man not only of great experience and sagacity, but well-known for his love of science, and at the end of the week he returned to Lord Harris, and accepted the task of organising a forest department, and reporting. He was then transferred from the military to the revenue department.

He first visited Burmah, and saw the working of the trained elephants; next, Dr Thomson of the Calcutta Botanic Garden; and obtained from every available source, and at considerable personal exertion, the necessary information. At the end of two months he presented his preliminary report to the Governor, embodying the scheme for a forest department, afterwards to become so important in India. Sir Dietrich Brandis was appointed by Lord Dalhousie, the Governor-General, to the newly-acquired province of Pegu, as Conservator of Forests in Burmah, while Dr Cleghorn worked on in Madras, and they frequently consulted together, so as to act on the same lines.

At this time (1861) Dr Cleghorn visited his home in Scotland, taking a brief holiday of a few months, and marrying Miss Cowan, daughter of Mr Charles Cowan, late M.P. for Edinburgh. Returning to India, he landed with his wife at Galle in Ceylon, where he received a telegram from the Government requesting him to return to Simla. On arrival he was appointed Joint-Commissioner with Sir D. Brandis for the conservancy of forests. The Governor-

General further desired Dr Cleghorn to proceed to the Punjab to examine the forests of Western Himalaya, and to institute a systematic plan of conservancy and management. He spent three years in exploring the countries adjacent to our north-west frontier, including part of Kashmir and the Trans-Indus territory. The fine series of photographs taken during his journey to Kashmir give a vivid idea of the remarkable geological formation, of the richness of many parts in pines and other trees, and of the general configuration of the region.

The two commissioners met frequently, and finally presented reports. Dr Cleghorn's was published in 1864, and forms a large octavo volume, with various maps and plans, exhaustively dealing with the forests of the Punjab, and in a manner that reflected the highest credit on his ability as a scientific botanist and experienced administrator in forestry.

Having thus introduced the system of forest conservancy in the Punjab, Dr Cleghorn returned to Madras, and carried on the duties of Conservator of the Forests in that Province. "He had the satisfaction of accomplishing for the Madras Presidency the same result, which thirteen years previously he had helped to bring about in Mysore. The Government prohibited Kumri cultivation in the forests without previous permission."* Meanwhile, Sir D. Brandis, whose experiences of forests were European, for he had studied the subject in Germany, Saxony, and France, as well as in India, was appointed the first Inspector-General of Forests to the Government.

Life passed pleasantly in Madras for some years, but his father dying at Stravithie in 1864, he came home on short leave in 1865. He also acted as Inspector-General of Forests when Dr Brandis visited this country in 1867. Finally, he retired from Indian service in 1869.

Besides his official reports, he published a work in 1861 on the "Forests and Gardens of South India"—in which the conservancy of the forests, the economical method of supplying fuel, and the modes of treating the several trees, as well as the condition of the various gardens, were fully illustrated. As Principal Sir William Muir stated some years ago,† this work was extremely useful in spreading

* Sir D. Brandis, *op. cit.*, p. 90.

† *Trans. Roy. Arbor. Soc.*, xii. p. 200.

a knowledge of the value of forests, and the best means of assisting their cultivation. His Indian experiences were also given in many separate papers published between 1850 and 1870, such as those on the "Hedge-plants of India," "Sand-binding Plants," "Chiretta used in the Hospitals of Southern India," "The Indian Gutta Tree," "The Coco-nut Tree," "The Varieties of the Mango Fruit," "The Introduction of Cinchona Trees," and numerous others dealing with trees, general vegetation of districts, and accounts of his expeditions,—one of the latter, viz. that to the higher ranges of the Anamalai Hills, having been published in the Society's *Transactions*. Thus, whether we regard Dr Cleghorn's great services to the cause of forestry in India, his labours in general botany, or his official duties in connection with the army, it is seen that the Minute of the Government on his retirement was fully merited. It runs as follows:—"His long services, from the first organisation of forest management in Madras, have, without question, greatly conduced to the public good in this branch of administration; and in the Punjab also Dr Cleghorn's labours have prepared the way for the establishment of an efficient system of conservancy and working the forests of that province."

In the summer of 1869 he was suddenly called, by the serious illness of Prof. Walker Arnott, to undertake the duties of his class in the University of Glasgow. He then gave a complete course of lectures on Systematic Botany, besides conducting the various excursions of the class.

Dr Cleghorn now took up his residence at his estate of Stravithie, and entered keenly into every philanthropic movement in the county. As justice of the peace, and member of most of the important county committees, his time was fully occupied. His efforts to promote the cause of temperance also deserve grateful remembrance. As prison visitor, by his kindly sympathy and advice, he obtained a hold on many an unfortunate criminal, whom, on discharge, he was the first to assist pecuniarily, as well as to aid in obtaining employment.

While thus largely occupied with philanthropic and county business, he still found time to pursue his favourite studies of botany, and especially of forestry. In 1870, ten students of forestry, who had been driven from the banks of the Rhine by the contending

armies, were placed under his care. He continued their studies by a course of twenty lectures on forestry in the United College, St Andrews, which were attended also by the general students of the University, attracted no less by the interesting nature of the subject than by the great experience and the sympathetic bearing of their teacher. The grounds of Stravithie were studded with rare pines and shrubs, and he was ever ready to invite and welcome botanical and other visitors to see them. Nature had been lavish in the botanical treasures of his neighbourhood, and by judicious planting, art greatly increased its amenity. He was one of the leading members, and President in 1870, of the Botanical Society of Edinburgh, his presidential address being devoted to a review of the advances in botany since he joined the Society in 1839, and a summary of the present state of the science in Scotland. The congenial presence of old friends like Sir Douglas Maclagan, the late Professors J. H. Balfour, Sir Robert Christison, and others, at this Society, and at the Royal Scottish Arboricultural Society, was to him a constant source of pleasure. He was indefatigable in advancing the interests of the latter Society, and he was twice President. For many years he selected candidates for the Indian Forest-Service, and it was his evidence before the Forestry Committee of the House of Commons that was mainly instrumental in the formation of a Forest Board to promote the proper training of young men for forest-service, and which also led in part to the establishment of a Forest-Branch in the Engineering College at Cooper's Hill, Surrey. On retiring from the India Office, he received a complimentary acknowledgment of his services from the Secretary of State, mentioning, amongst other things, that all the present forestry-officers in India had passed through his hands. For ten years he acted as Examiner in Botany in the University of Edinburgh, and no one more assiduously or more conscientiously performed his duties. For twenty years he was also Examiner in Forestry to the Highland and Agricultural Society.

No one was more active or more persevering in furthering the project of an International Forestry Exhibition when it was mooted in Edinburgh in 1883, and his extensive acquaintance with those most likely to aid on the Continent, in America, and in the Colonies, was of signal service to the executive. The success of this important

Exhibition, indeed, was largely due to his unceasing efforts; and further, he roused public attention to the need of more complete and systematic training in forestry than was then available. The importance of the conservation of the forests of the country, and of their extension, both for the sake of amenity and economy, were prominently brought out by the Exhibition itself, by the various papers connected with it, and by several lectures he was instrumental in appending. By his influence the Board of Agriculture agreed to give a sum of £100 per annum, and the Highland and Agricultural Society £50 per annum, while the sum of £1000, then anonymously given, most generously came from himself—all to found a Chair of Forestry in the University of Edinburgh, a project he had kept in view for some years. He succeeded in a way which only high purpose and skilful diplomacy could, and now a Forestry Lectureship is permanently established. The first lecturer was Dr William Somerville, who now holds the Professorship at Durham, and the present holder is Col. Bailey, R.E., who was lately in charge of the Forest School of the N.W. Provinces of India. The gratitude of all students of forestry was thus worthily won by his indefatigable exertions and his generous help. It is satisfactory to know that his botanical library also goes to the University of Edinburgh.

Further, besides extending the interests of the Department in London and Edinburgh, he did not forget the efforts that were then being made in the University of St Andrews to widen the sphere of teaching, especially by the introduction of Botany into the curriculum. His counsel and encouragement were always at the service of those working in this direction. Accordingly, when lectures on botany were commenced in 1887, he most kindly gave numerous lecture-diagrams, a botanical cabinet and herbarium, a series of reference-books, and took a personal interest in the success of the class, then under Dr J. H. Wilson, now of the Yorkshire College, Leeds. He also gave prizes to the best students, and invited them to Stravithie to botanise, and in various ways encouraged the new lectureship. A year or two afterwards he intimated that he intended to give £1000 to the Chair of Natural History in St Andrews, formerly held by his relative, Prof. Hugh Cleghorn. The struggling lectureship in Botany, however, was more in need of it,

and he was advised to make it secure by this handsome donation. He agreed; and the necessary document was there and then drafted, at that time anonymously. In the formation of a Botanic Garden in the University he took a deep interest, and spoke at the opening ceremony in the Garden in the summer of 1888, especially dwelling on the practical skill which the young lecturer (Dr Wilson) had shown in arranging the natural orders of plants.

Dr Cleghorn's distinguished career in India, his unselfish devotion to the good of the community, and his active efforts to advance science—especially in the two Universities with which he was more immediately connected—did not pass unnoticed. In 1885 the University of St Andrews bestowed on him the honorary degree of Doctor of Laws. He was made an Honorary Fellow of the Botanical Society, a distinction limited to six British subjects; and he was elected also an Honorary Member of the Scottish Arboricultural Society, and a Vice-President of the Literary and Philosophical Society of St Andrews,—his last appearance having been made before the latter body, viz., in reading a paper by Mr Coldstream on Fruit-growing in India, a subject he had long advocated. He was also elected Assessor to the University Court of the University of St Andrews by the General Council, and he held this office with great acceptance till failing health necessitated his retirement—to the regret of his friends in the University. Finally, at a meeting of the Scottish Arboricultural Society in 1888, he was presented with his portrait, subscribed for by all classes, from peers to foresters and horticulturists, and a sum of £200, which latter he suggested should go to form a forest-library. On this occasion a graceful tribute was paid by Principal Sir William Muir to Dr Cleghorn's services to science, and to arboriculture in India and in this country; and he concluded by announcing that the "Hugh Cleghorn Forest-Library" would be placed in the Museum of Science and Art, Edinburgh. Nothing, in short, could have been more agreeable to the recipient, or more honourable to the large number of distinguished men who had subscribed, and some of whom were present.

The career of Dr Cleghorn was singularly varied, but throughout there runs the thread of a true devotion to science, especially to botany and forestry. His services to the State in India and at home, in the cause of the latter, have been noteworthy, and will

long remain to testify to his perseverance, his breadth of view, and his great powers of observation. As a philanthropist and educationalist, again, he played an important part—in fostering all that was good in life on the one hand; and on the other, in giving substantial encouragement to science in the Universities, and in aiding them to extend their influence amongst the people.

He was a man of high personal character, a genuine Christian, and a generous landlord. His genial and kindly bearing everywhere gained him esteem. For some time he had been in failing health, and in early spring he somewhat suddenly broke down, peacefully passing away in his quiet home at Stravithie, mourned by all around him, and by a wide circle of friends elsewhere.