

grubs in all the other pots having been destroyed from some unknown cause. At the time these experiments were commenced twelve other plants were placed in pots and infected with purple scale at the end of August. The scale developed very rapidly on these plants and at the end of December all the plants had died, being then encrusted with purple scale for the whole length of the stem. The root systems of these plants were found to be in good condition at the time the foliage dropped from the plants, and it conclusively proves, so far as it goes, that purple scale alone is capable of destroying young trees.

Conclusions arrived at.

Summarizing the position with regard to lime cultivation, the continued good health of closed-in fields appears to the writer to provide an object at which lime growers should aim in establishing lime fields. This does not mean that the trees should necessarily be planted closer together, though the question of distance will be influenced by the character of the land and the rainfall. It seems to imply that there should be some artificial means of controlling scale insects, should they develop, and at the period when they are severe. Fields, however, have been established within the last twelve years, on which there was no striking development of purple scale until the plants had reached the bearing stage, and the development of the scale will depend on the opportunity for the infection of the young plants either in the nurseries before being planted out, or on the transmission of it from older infected trees in the neighbourhood after the field is planted. To encourage young trees to develop quickly, green dressings should be grown between the plants from the time they are planted.

To put these ideas to a thorough test, arrangements have been made in co-operation with the Montserrat Company, Limited, to plant one acre of land in limes near the Experiment Station, which will be treated on the above lines, i.e., green dressings will be continuously grown from the time the trees are planted and an attempt will be made to cope with purple scale should it develop. One half of this plot will have plants of *Gliricidia* alternating with the rows of lime trees to provide additional shelter and shade.

OBITUARY.

MR. WALTER B. KINGSFORD.

As announced in last CIRCULAR, Mr. Walter B. Kingsford died on November 16th, at his residence in London.

Mr. Kingsford was possessed of an engaging personality. Quiet and reserved, he had many friends. He first became associated with the West Indies through being briefed—he was a Barrister-at-Law—by the West India and Panama Telegraph Company, on whose behalf he went out to the West Indies in 1876; later he was counsel in the litigation which went on for so long in connection with the Trinidad Pitch Lake. He was elected a Director of the West India and Panama Telegraph Company in 1896, and Chairman in 1902. In

that capacity he was indifferent to abuse regarding the service which was frequently showered upon him, and outwardly fearless of competition, and it was characteristic of his kindly nature that differences of opinion in business matters were never allowed to interfere with personal friendships. A member of the West India Committee and the West Indian Club, he frequently attended the fortnightly dinners of the last-named body, and it was, we know, a great disappointment to him when they had to be suspended owing to the War. In the winter of 1913-14 he visited the West Indies on a tour of inspection of the stations of his Company. By the West Indian community in London and his many friends in this country and elsewhere he will be greatly missed.

MR. EDWIN T. RACKER.

We regret to announce that Mr. Edwin Thomas Racker died at Bridgetown, Barbados, on December 11th.

Mr. Racker at the time of his death was the Parochial Treasurer of St. Michael, Barbados, and editor and proprietor of the *Agricultural Reporter*. Born in Barbados, he was devoted to the island of his birth, and a particularly staunch supporter of the Representative Constitution, which the inhabitants have enjoyed since the year 1627. We believe that we are right in saying that he never left the island; certainly he never visited America or England, and though this, in the opinion of some, led to a certain insularity in his views on some public matters, and an unwillingness to be convinced regarding accepted theories as to medical and cognate problems, he was extremely well-informed. He took a great interest in the public life of Barbados, being Chairman of the Mutual Life Assurance Company and the Barbados Fire Insurance Company, and he had a seat on most of the public Boards in the island. He was a life Director of the Barbados General Hospital, and for many years filled the responsible position of Chairman of the House Committee. He was given a Commission of Peace many years ago. Being possessed of a strong sense of justice none suffering a wrong appealed to him in vain. Of a kindly, thoughtful nature, he was always ready to extend a helping hand, but he detested publicity in such matters, and many good deeds and kindly actions consequently passed unrecorded. He was a clever conversationalist, being extremely well-read, and, as already stated, well-informed. Mr. Racker leaves two sons and three daughters to mourn his loss. One son is a doctor with a medical practice in Manchester, while his other son is an electrical engineer in Bombay.

DARWIN AND HILL.

BY FRANK CUNDALL.

Dr. G. F. A. Da Costa has in his possession an unpublished letter by Charles Darwin addressed to Richard Hill, and has kindly consented to its publication in the WEST INDIA COMMITTEE CIRCULAR.

Richard Hill, one of the most remarkable men that Jamaica has produced, is best known for his collaboration with Gosse, the naturalist, and for his efforts on behalf of the abolition of slavery. He contributed to several scientific publications both in England and America, and by this means became connected with some of the leading learned societies of the world. He was a corresponding member of the Zoological Society of London, of the Leeds Institute, and of the Smithsonian Institution, and he numbered amongst his correspondents Darwin and Poey. Darwin had written in September, 1856, to Gosse for further information with respect to the habits of pigeons and rabbits

referred to in his "Sojourn," and it was at Gosse's suggestion that Darwin wrote direct to Hill; and in a later letter, written in April, 1857, he says, "I owe to using your name a most kind and valuable correspondent in Mr. Hill, of Spanish Town."

The "little book" Darwin alludes to was "The Origin of Species," published when he had just completed fifty years. On the 11th of September he wrote that he had finished the last proof-sheet, adding "Oh, good heavens! the relief to my head and body to banish the whole subject from my mind!" The book was published on the 24th November, 1859, and the whole edition of 1,250 copies sold on the day of publication. On the 25th of January, 1859, in writing to A. R. Wallace on the question of "Origin of Species," Darwin had said "I am delighted to hear that you have collected bees' combs. . . . This is an especial hobby of mine, and I think I can throw a light on the subject. If you can collect duplicates, at no very great expense, I should be glad of some specimens for myself with some bees of each kind. Young, growing, and irregular combs, and those which have not had pupæ, are most valuable for measurements and examination. Their edges should be well protected against abrasion."

The following is a copy of Darwin's letter to Hill:—

Down, Bromley, Kent.

Aug. 8th, [1859].

My dear sir,
I have delayed answering your last kind note, until I got the hive (after some delay owing to mercantile forms) from Mr. Bishop. Mr. B. has been very obliging and when you see Mr. Wilkie pray give him my best thanks. The quality of honey was astonishing and so excellent that honey for him then repaid the cost of the hive. The combs were rather too crowded and old (till all fully formed) to be very good for measurement; yet I can clearly see that the cells are larger (in about proportion of 60 to 51) than the cells of British combs. This is a curious fact (and shows that Latraille was correct): the size of the cells of European cells are so uniform that I think that I remember that some wild [?] man proposed them as a standard unit of measurement! The walls of the cells are, I am almost sure, considerably thicker than in our cells; but I have as yet made no precise measurements. Now these facts make me anxious to obtain $\frac{1}{2}$ dozen dead Bees and perhaps 2 or 3 drones: until you oblige me by trying to get them from Mr. Wilkie's Stock, and send them in box in letter, as they could not weigh one $\frac{1}{2}$ oz. It is possible that the species may be different, or that our species may have grown larger under your magnificent climate. I have lately returned from spending a week at a Hydropathic establishment for my health-sake, and then I had the great pleasure of meeting Mr. . . . and charming Mrs. Wilkinson of Jamaica. Your letters have excited in me much interest about you, and I was quite delighted (if you will not think it impertinent in me to say so) to hear

of all your varied accomplishments and knowledge, and of your higher attributes in the sacred cause of humanity. I am sure I feel grateful to you for all your kind assistance, and I beg leave to remain with sincere respects,

My dear Sir, Yours very faithfully,
(Sgd.) CHARLES DARWIN.

My little Book will be not ready till the autumn, when a copy shall be sent you. I fear you will not at all approve of the results arrived at, but I hope and believe that you will give me credit for an honest zeal for truth.

For a bare chance of you proposing any information on two following heads, I will append two questions.

Do the cattle or horses or sheep or pigs which have long been bred in Jamaica (without crosses) tend to assume any particular colour, or other character? Several years ago poor Sir H. Delabèche told me he *believed* that they did.

Secondly is there any current belief in the W. Indies that there is any difference in the liability of pure *Europeans* of a light complexion and hair, or of a dark complexion and hair, to take the Yellow Fever or other Tropical complaints?

THE BRITISH WEST INDIES REGIMENT.

THE following appointments to the British West Indies Regiment were gazetted on December 14th:

Lieutenant Robert John Craig, British Guiana Local Forces, to be temporary Lieutenant. Dated 21st August, 1915.

The undermentioned officers of the Trinidad Local Forces to be temporary Lieutenants (dated 18th September, 1915):—

Major Allastair Murray McCulloch.

Captain Alfred Ernest Albert Harragin.

Captain Ernest Bovell Connell.

Captain Herbert James Lawrence Cavenaugh.

Captain William Hubert Gillespie Thorne, Barbados Volunteer Force (Honorary Lieutenant in the Army), to be temporary Lieutenant. Dated 20th September, 1915.

Lieutenant Thomas Henry Irving, British Guiana Local Forces, to be temporary Second Lieutenant. Dated 18th September, 1915.

The undermentioned Second Lieutenants, Trinidad Local Forces, to be temporary Second Lieutenants (dated 18th September, 1915):—

Alexander Sturrock Lowson.

Uailean Hamish McUistean Gooden-Chisholm.

Leonard Richmond Wheeler.

Robert Philip Johnstone.

John Patrick Thomson.

Edward Vivian Bynoe.

Edmund Richard Lickfold.

The undermentioned to be temporary Second Lieutenants (dated 19th September, 1915):

Lieutenant David Irvine Kerr, Grenada Local Forces.

Second Lieutenant Paul Ewart Francis Cressall, British Guiana Local Forces.

(dated 20th September, 1915):

Lieutenant George Challoner, Barbados Volunteer Force.

Second Lieutenant Edward Keith Walcott, Barbados Volunteer Force.

Captain G. W. R. Jenkins and Captain Vincent G. T. Gane were gazetted temporary Majors on December 12th, to date from November 14th and 15th respectively, and Lieut. and Quartermaster G. E. Simon, from the 11th Battalion Loyal Lancashire Regiment, joined the Battalion for duty on December 19th.