

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No.	969	Press Mis. —
Dated	24-4-	1866.

Not to be folded or roughly handled

No. 391. Read the following letter from C. R. MARKHAM, Esq., to the Secretary to Government Revenue Department, Fort Saint George, dated Bellary, 24th February 1866:—

1. Before leaving India I cannot refrain from bringing to the notice of the Government of Madras, the position of Mr. Spruce, the collector of the *Succirubra*, or red bark species of Chinchona trees, in the hope that they will take such action as the circumstances of the case may appear to them to call for.

2. The *C. Succirubra* trees now cover the sides of the Neddivuttum hills, and the benefit to India that will be derived from their cultivation is, I am sure, fully appreciated by His Excellency in Council. I therefore feel some confidence in bringing Mr. Spruce's case to their notice.

3. Mr. Spruce, after years of toil in the tropical forests of the Amanon, solely with a view to the advancement of science, and after ruining his health in the service of India, has returned to England, completely disabled by sickness, and in extreme poverty owing to the breaking of a commercial house at Guayaquil, where he had deposited all his savings, his losses even extended to the sum he had received from the India Office as remuneration for collecting the plants and seeds of *C. Succirubra*, and for the admirable scientific reports which accompanied them. His losses were owing to no fault or even imprudence on his part.

4. The enclosed statement, to which I beg to call special attention, will give some idea of the great services to science and to India which have been performed, in the midst of no ordinary difficulties, by this distinguished Traveller and Botanist.

5. Mr. Spruce's position was brought to the notice of Lord Palmerston in a memorial signed by all the Presidents of the leading Scientific Societies of London, as well as by Sir William and Dr. Hooker, and Dr. Lindley. The memorial prayed for a pension of £ 100 a year, in consideration of Mr. Spruce's great services to science and of his present circumstances. The late Prime Minister, in considering the case, said that Mr. Spruce's most valuable practical service had been done for India, and that, therefore, the English list should only bear half the cost of his pension. He accordingly granted him a pension of £50.

6. Under these circumstances, looking to Lord Palmerston's expressed opinion, and to the results that India will derive from Mr. Spruce's labors, I cannot but hope that the Government of India will make up the pension to £100, and thus enable one of whom his countrymen may well be proud, to pass his few remaining years in some sort of comfort. When India is deriving great revenues and inestimable blessings from the *red bark*, it will not be pleasant to reflect that the eminent Botanist to whom she owes these advantages was allowed to die without the means of furnishing himself with those few comforts which a sick man requires. One hundred pounds a year would enable him to exist in his present sad condition, fifty pounds will not. The grant, therefore, of this trifling pension of Rupees 500 a year for a few short years, will make all the difference between absolute want and comparative comfort.

7. Any recommendation from the Government of Madras, whose members know personally the results of Mr. Spruce's services, must have great weight. Trusting that this subject will receive favorable consideration from His Excellency in Council.

*Proceedings of the Madras Government, Revenue Department,
21th April 1866.*

*Statement of the results of Mr. Richard Spruce's Travels in the Valley of the Amazon,
and in the Andes of Peru and Ecuador.*

1849. 1. Mr. Spruce left Liverpool on the 7th of June, 1849, and reached Pará on the 12th of July. After spending three months in exploring the environs of that city, he ascended the Amazon to Santarem, at the mouth of the Tapajoz, and in November of the same year, went 70 miles farther up, to Obydos, where the Amazon is at its narrowest and deepest. Starting from Obydos he explored the Trombetas and its tributary the Aripicuru, as far as the cataracts of the latter, in latitude $0^{\circ} 47' N.$, fixing five latitudes by astronomical observations, and making a map of those previously unknown rivers.

1850. 2. Returning to Santarem in January 1850, he remained there exploring the lower part of the Tapajoz and adjacent parts of the Amazon until October, when he started up the Amazon for the Barra do Rio Negro, where he arrived after a voyage of sixty-three days, thirty whereof were spent in the channels to the south of the great island of Tupinambarana.

1851. 3. The greater part of the year 1851 was occupied in studying and collecting the rich vegetation of the lower part of the Rio Negro, and of the Amazon for a few days' journey up; and in November he started for the head-waters of the Rio Negro, in a boat of about nine tons burthen, which he had fitted up expressly with that object.

1852. 4. Early in January 1852, Mr. Spruce reached the village of Sao Gabriel, situated about midway of the cachoeiras or cataracts of the Rio Negro, and after remaining there some seven months, he proceeded up the large river Naupes, which had been scarcely known to Europeans, even by name, until Mr. Wallace's adventurous exploration of it the preceding year. Mr.

1853. Spruce found the Naupes to possess a more novel and beautiful forest-vegetation than any other part of South America, and his collections include several undescribed genera, besides many species notable for their beauty and the value of their products.

5. Mr. Spruce remained on the Naupes until March 1853, when he sailed out of it into the Rio Negro, and up the latter river beyond the Brazilian frontier, to San Carlos del Rio Negro. This village was his head quarters during his stay in Venezuela, which extended to November 1851, or more than a year and a half. During that time he made two expeditions to the Orinoco,

1854. one by way of the Casiquiari, and the other by the portage of Pimichiu and the Atabapo. On the former of these, besides examining the Casiquiari, both ascending and descending, he explored its tributary the Pacimoni to its source, among the lofty and picturesque mountains called Iunci and Tibiali; as also the river Cunucutima which bathes the western foot of the immense granite mass of Dinda, and enters the Orinoco a little below the bifurcation of the Casiquiari.

6. On his second visit to the Orinoco, he went as far down as to the cataracts of Maypures, rendered famous by the narrative of Humboldt and Bonpland. There and elsewhere in the region of the Upper Orinoco and Rio Negro he gathered many of the plants discovered by those illustrious travellers, and which had not been seen since by any Botanist. He also constructed maps of the hitherto unsurveyed rivers Cunucutima and Pacimoni.

1855. 7. Leaving Venezuela, he descended the Rio Negro, and reached the Barra do Rio Negro about the end of 1854, after an absence of above three years. Having reposed there over two months, he took advantage of the steamers which had been lately established on the Amazon, to ascend that river beyond the Brazilian frontier, to Nanta in Peru, near the mouth of the Ucayali, and from thence he went in canoes up the Marañon and its tributary the Huallaga to Tarapoto,

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a large and thriving town in the ancient province of Maynas. In the lovely valley of Tarapoto, which like many similar ones in the eastern roots of the Andes, will one day be the site of a magnificent city, when the immense resources of the Amazon valley and its unrivalled fluvial system, shall have been fully developed; he remained nearly two years, and collected there, besides a vast variety of other plants, no fewer than two hundred and fifty species of ferns, in an area of only fifty miles in diameter.

1856. 8. In March 1857, Mr. Spruce left Tarapoto for Ecuador, descending the Huallaga to its confluence with the Marañon then ascending the latter river and its affluents the Pastaza and Bombonasa to Canelos; finally through the forest of Canelos on foot to the village of Baños, at the foot of the volcano of Tunguragua. In this disastrous journey, which occupied a hundred days, he had to abandon all his goods in the forest, to escape perishing of hunger at the passage of swollen rivers.

9. Making Baños his head quarters, he devoted above six months to the exploration of the forests and paramos of its huge volcano, and of the upper part of the valley of the Pastaza.

1859. 10. In January 1858 he removed to Ambato, which for more than two years was his point of departure for excursions to Quito, Riobamba, &c., and to various points in the eastern and western Cordilleras of the Quitoenien Andes, although his movements were much harassed and restricted by the revolutionary state of the country during nearly the whole of that period.

11. In 1860 Mr. Spruce communicated a valuable paper to the Royal Geographical Society, on the mountains of Llanganati, in the eastern Cordillera of the Quitoenien Andes. (Journal for 1861, pages 163—184.) He has also communicated numerous important papers to the Linnean Society.

1860. 12. In 1860 he was occupied for some months in procuring seeds and plants of the Chinchona Succirubra or Red Bark plant, for cultivation in India, a task which was confided to him by Mr. Clements R. Markham, on behalf of Her Majesty's Government. Mr. Spruce displayed great zeal and resolution in performing this arduous service, while suffering from the effects of a rheumatic fever, and his labors received the unqualified approbation of the Secretary of State for India.

13. His elaborate Report on the expedition conducted by him to procure these seeds and plants, (accompanied by a meteorological journal, and a complete sketch of the vegetation of Chinchona forests,) is by far the best that has appeared on this subject in any language; and has been invaluable as a guide to the cultivation of these precious plants in India. It covers 112 printed pages.

1861. 14. Afterwards, his broken health seeming to require a return to a warm climate, he removed to the plain of Guayaquil, and his active labors as a Botanist may be said to have closed with the picking up of a few plants in that neighbourhood during the year 1861, and during 1862 at Chanduy, on the coast, near Punta Santa Elena, where an exceptional rainy season, coming after

1862. an interval of fifteen rainless years, enabled him to make a small but interesting collection of the ephemeral plants which under the influence of the rains sprang up on the desert, and also of several curious trees and shrubs whose blackened stems had not for some years past put forth even a leaf.

15. The results of this long course of travel (whose objects were at first purely botanical) comprise from 6,000 to 7,000 species of flowering plants, and ferns, whereof a very large proportion were entirely new to science, especially among the trees, whose timber and other products were also ascertained to be in many cases of great value. Several new species may be instanced, and one entirely new genus, of trees producing the best kind of caoutchouc, which is now extracted

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from them in large quantities by the Brazilians, but was not before until Mr. Spruce pointed the trees out on the Rio Negro and elsewhere. His specimens of all these plants are preserved in the principal public and private collections in the world, and are, therefore, perfectly accessible for the purposes of science. A very large collection of Cryptogamic plants, perhaps the largest ever made by any single collector, still remains to be worked up.

16. Mr. Spruce's MSS. contain, besides notes on all the plants collected, vocabularies of twenty-one native languages of the Amazon valley, meteorological observations, barometric levellings, &c., throughout the regions visited, maps of three rivers which had not previously been surveyed, notes of travel, of the aspects and capabilities of the various countries, of the customs, food, trade, and agriculture of their inhabitants.

Note by Mr. Benthams, President of the Linnean Society, on Mr. Spruce's services to Botany.

1. Mr. Spruce, before his expedition to South America, was well known for his industry and assiduity with which he collected, and investigated, in various branches of Botany, especially in the muscology of Yorkshire and the Pyrenees.

2. His researches into the vegetation of the interior of South America have been the most important that we have had since the days of Humboldt: not merely for the number of species he has collected, amounting to upwards of 7,000, but for the number of new generic forms with which he has enriched science; for his investigations into the economic uses of the plants of the countries he visited, for several doubtful questions of origin as to interesting genera and species which his discoveries have cleared up; and for the number and scientific value of his observations, made on the spot, and attached to the specimens preserved; all which specimens have been transmitted to this country, and complete sets deposited in the National Herbarium at Kew.

No. 392.

ORDER THEREON, 24th April 1866, No. 909.

Miscellaneous.

Ordered to be forwarded, together with the enclosure, to the Secretary of State.

(True Extract.)

[Signature]

Secretary to Government.

I do not see that the Gov^{rs} can come in the matter otherwise than by 3rd forwarding the paper to the Sec^y of State with information as to the quantity of C. Recumbens now in our possession. The portion of time devoted to this service of the Gov^{rs} if I may so say, was not long. However Mr. Spruce has been a hard working man. It is a pity to whom the world owes much.

[Signature]
W. O. H.
[Signature]

To C. R. Markham, Esq.

Exd. T. S. Augustin.

Ordered to be forwarded
together with the enclosure, to
the Secretary of State.

N^o 391-392

22^d March 1868

C. P. Markham Esq.

9-11-10

24th April 1868

Reports 24th

April 66 N^o 17 Num

Per = 1866. Depart
Pro of Govt for April
N^o 623.

From
C. Markham
Esq.

Dated 24th 3 July
Received 28th 1868
W.

Under the cir-
-cumstances stated,
requesting that this Govt
may be pleased to re-
-commence to the Govt
of India for an addl
grant of 500 Rs pension
per annum for Mr. Spruce
the collector of the Chin-
-chona Succirubra -
N^o 969. 24th April

For Order

W. H. Miller