variety; (it is called here "Abang grondong Condaminea", & "broad leaved Condaminea" as well as "Wideningia") the specimens however that I have procured with my report should settle this question. Abijeneryldii "Officinalis" only with much larger leaves and of stronger and quicker growth, forming a long table drange tree; there are only about 1,000 of these scattered in the Dodabetta plantation, and about once dozen only at Kodanad, so that there is some mistake in the Lyfjaboken's Mr. Macivor planted young with it in 1875; there are many applications for the seed of this from various parts of the world, probably owing to reports of Mr. Macivor & Mr. Money; and considering its healthy, strong growth and close affinity with "Officinalis" I should not be surprised if it turns out our most valuable species

species. I learn from Mr. Broadbent that small samples of the bark were sent to England for analysis and that these are the Nos. 18, 19 and 20 under "Condaminea" from Dodabetta given in the table of analysis in G.O. No. 1336 dated 23rd June '79. This a species or variety however that we must learn more about.

6. The analysis of these Nilgiri is a valuable addition to the Chymical knowledge of our species; we have the good sized trees of this species near the Dodabetta path, but it has not been further propagated, this analysis differs considerably from that given in G.O. 1336 of 23rd June '79, when it was much younger, this giving 3.98 per cent of quinine, Mr. Paul's specimen only 1.50. Mr. Howard urges its propagation chiefly because of its yield in quinidine which in his specimen is 2.01 per cent (though in Mr. Paul's only 0.82). I observe the yield in

Quinidine

quinidine is as high as 2.30 in some of Mr. Cross's samples of "Crown bark", as analysed by Mr. Howard, and in pod-bark of the same species it is as high as 3.45. The extended propagation however of "Pitayo" seems desirable if only the yield of quinines is considered...

j. No: 18 is one of the 2 species or varieties confounded under the name of "Macleod's hybrid" or "pubescens"; it is the so called "magnifolia" of my report (not "pubescens") and the "Pata de Gallinazo" of Mr. Cross, Mr. Howard now says it is the "Cinchona Coccinea" of Pavon, but he has only seen bark, no specimens of leaves or flowers having been forwarded, - I regret such a small sample only of this was forwarded, as it is not a fair criterion; it is very similar so far as the natural bark and the yield in quinine, to the analysis

analysis given by Mr. Paul in G.O. No: 1336 of 23rd June '79 under the head "hybrid pubescens" Neddivattam and Dodabetta, which samples were from the same variety (the glaitus "magnifolia") not from "pubescens", as Mr. Cross examined the trees from which Mr. Rowson stripped it at Neddivattam and examined them on Dodabetta, the yield in Chinchonine however in the specimens analysed by Mr. Paul differs enormously from the specimens sent by Mr. Cross, but a similar clear difference is observable between many of the crown bark samples now analyzed by Mr. Howard. As already reported 2 Bales of the natural bark of this species went to England from Dodabetta last December, and sold at 7. 1. per lb. under the name of "Hybrid pubescens". Mr. Howard and Mr. Cross both advocate the propagation of "Succirubra" being given up in favor of

* Nos: 10811 Neddivattam and Nos: 10, 11 & 12 Dodabetta.

of this species, I quite agree with this, considering the healthy and splendid growth of this species, which I have written about many times in my last report.

8. I much regret that samples of the "pubescens" bark were not forwarded. +

9. Mr. Cross states that in the samples forwarded to Mr. Howard Nos 21 and 24 have evidently been changed.

10. If the samples 19 and 20 be compared with 22 and 23 it will be seen what a heavy fall in yield in quinine the original bark of "succirubra" gives compared with the renewed bark, this alone guide-boards the adopting systems of harvesting for this species at least; nearly all the ped bark pieces at Nedivattam gave poor yielding renewed barks, and the yield of these samples (viz: 3.08 and 2.04 per cent of quinine) is

is very high for ped bark, but here again we have to be cautious as they are only small samples taken perhaps from exceptionally fine trees grown under favorable conditions; in any case the yield is inferior to that of the "magnifolia".

11. Of the "Crown barks" only 5 samples of "renewed bark" were sent against 16 of original bark, but that would is sufficient I think to show the great superiority of the former, and that adopting it as a principle to be avoided, when I have shown in my report that, after most careful inspection the trees have not at all suffered in the slightest degree from the stripping process.

12. Of No: 25 "Calisaya" I must write further later on; we have at Nedivattam 4 sorts of yellow barks "Calisaya", "Calisaya Ledgeriana", "Calisaya var: Anglica" and "Calisaya var: Javanica". Mr. Cross informs me

me that he looked upon gall as the same, and that he does not know which species it is taken from, but he thinks Mr. Rowson knows the exact tree, so I may be able to identify it, if from one of the few trees now alive of "Ledgeriana". I have no remarks to make, but the only shrubby variety at Seddivattam is the "Javanica".

13. At the present stage of our Plantations, when most of the species and varieties are of a good age, and well developed and easily recognized, I consider that the employment of a competent Chemical analyzer up at Ootacamund, if only for a few months, would result in the greatest possible benefits in the future both as regards the Government plantations and the wider field of private planting. Dr. Mr. Broughton's days many of the species were young and not developed sufficiently in their characteristics, and there is most evident proof, that the question of species and varieties was in a great jumble.

14. I attach the greatest importance to the careful collection of seeds from the healthiest and best trees of "Officinalis", as well as from our other finer species or varieties, and I have already given very full directions on this point to the Officers in charge.

15. I do not understand Mr. Howard's remark that the quantity of Bark sent to England from Dodabetta seems disproportionate, and exhaustive, or on what data he surmises this to be the case; we are not uprooting or even copping the "superior quality" of this crown bark, which he alludes to himself is proof I think, that it is not harvested prematurely, and as long as this is

is guarded against the sooner the 1st stripping of the natural bark takes place the better, as the renewed bark is far more valuable in the market; the subsequent strippings can always be taken off every two years, and to delay removing it after maturity is of Comparative dead loss; Our account of insufficient room for drying and storing, our estimates this year at Neddivattam have Calculated for a shorter Crop than we ought to gather. I have however quite lately received Mr. Morris's interesting report, for last year, on the Jamaica Gardens and plantations, which contains much valuable information on Cinchonas, and he has found that sun-dried Cinchona bark is more valuable than that dried by artificial heat, I hope therefore if we have any

Continuation

Continuation of sunny weather, this September or October, to try this system of drying, although it has hitherto been supposed there (I do not know from what experience), that bark dried in the sun loses in virtue.

I have the honor to be
Sir,
Your Most obed.t Servt.
Rt. Hon.ble Colonel
Conservator of Forests.

Revenue 1881 Depart.

No 11164

Price

1881 – 82

Revenue Stamps

From

The Commrs of Stamps

To, The Secretary to Govt.
Revenue Department
Calcutta

Dated 10th } August 81
Read: 12th }

No 10984
(Enclosure One)

Subject.

Manufacture of Electric Light Carbons for Submitted by Messrs Howard

Forwarding Mr Rosse's remarks on the — with the Commrs observations.

Cig-8-81.
Dg-8-81.

Calcutta

Dated 1881

Read

309

Small Bill

Manufacture of Electric Light Carbons

Commissioners of Stamps

Memorandum

Communication with Order for Gt of Allowance
reference to Report from the Secretary of State
for India with enclosure of 80 Stamped Receipts
issued by the Oriental Telegraph Co.
at the Superintendent Stamping of Calcutta
And Certificate

Mr. Rosse's remarks on the proposition
of the Company to use the Electric Light
Carbons manufactured by them for printing
Each specimen is stamped both sides
Seal is about 1/2 an Inch in diameter
Can be such as Cotton and Silk
but Silk suffocates both for nine months
Samples

2nd The Samples of Carbons both of
original and Enlarged Form are attached
in different parts of the Memorandum
Respecting the Writing Press at the head
of the Enclosure to some of which you are
brought here to attach Seal On all the
Heads Excellent Carbons from these
Samples were manufactured only by the Firm

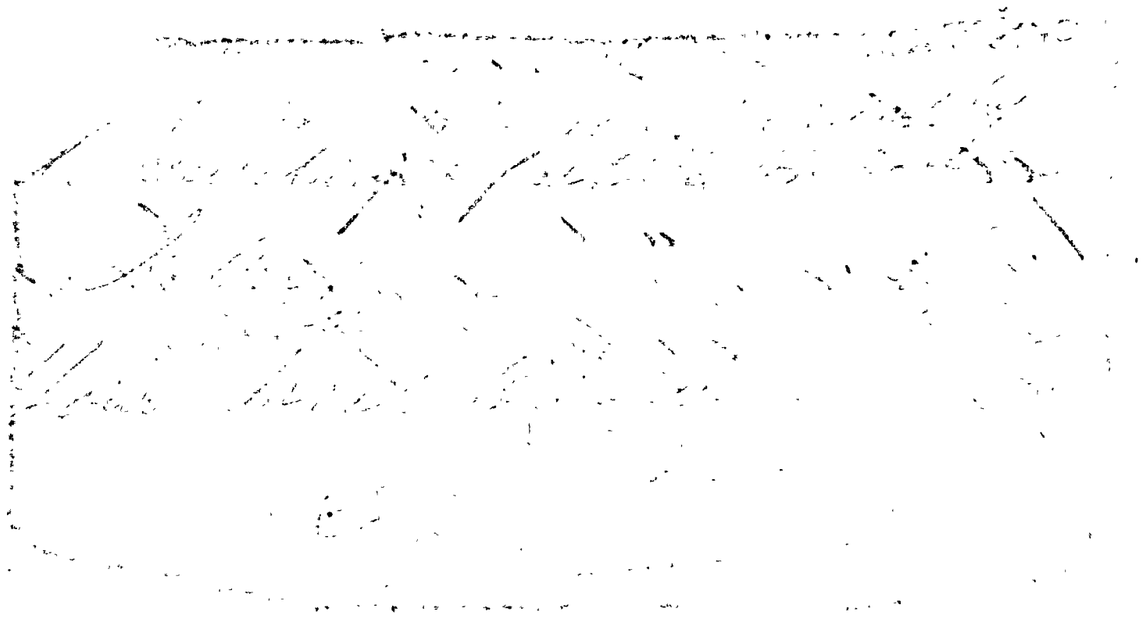
all the known species of Chief & Honduras Bark
Islands in the Grand Cinchona Plantation
at Ootacamund together with some of the
best Cuzco Barks as the time of
year selected to. The packages were
afterwards filled up with the Nilgiri
Bark in the way the Public Gardens
were supplied.

6th The samples of Original Bark were
re-weighed, by the Head Overseer
collected from the lower part of the stem
of each tree immediately after the barks
having been removed on the upper portions of the
trunks.

7th No 21 was no doubt exchanged by
mistake with No 24.

8th It seems to me that special thanks
are due to Mr. L. E. Howard and Mr.
David Howard for the very interesting
and practically useful analysis of these
bark samples.

9th A further analysis at a future time
might I think be made by some Quinine
Manufacturer of renewed barks of different
ages and also of "scraped" bark from the
best species, likewise of barks obtained
from varieties or individual
trees considered to possess
special excellence in regard to



31st 15th August

My Dear Master.

I am much
obliged to you for sending
this —

I have gone thro'
it carefully twice, there
were only a few
mistakes

Yr. sincere
Affectionate

RD 313/45

Supt. G.O. No 1280 d/29 August 1881

5. No 2940	Letter from the Conservator of Forests dd 4th June/81
6. No 3085	Do do do dd 6th June/81 No 207
6. No 3006.	Do do do dd 6th June/81 No 208
6 No 3250	Do do dd 22nd June/81 No 295
6 No 4164	Do do dd 10th Augt/81. No 498 Cy.

The papers recorded above contain valuable information on the several points discussed relative to Chinchona cultivation. The series commences with the inspection report on the Govt Plantations which Col Beddome was

was directed to prepare on assuming charge of the Plantations - Next in order, come the Cons[l] remarks upon Mr Cross's recent interesting account of his impressions on visiting the different locations on the Hills where Chinchona is grown under Governmental Superintendence - This is followed by Mr Cross's remarks on the most appropriate elevation for the cultivation of the Chinchona Calisaya Var Ledgeriana and his observations upon Mr Howard's analysis of samples of bark selected and sent home by him during the Spring -

Finally,

L.O. 8th Dec/80
Ln 1670 729.

× L.C. 17th May 1881
c Ln 781 7 RD.

* L.C. 25th July 1881
c Ln 1105 RD

31 46

Finally, though not latest in point of date come Col. Beddome's remarks upon the results of recent Chinchona sales.

2. The Govt in Council proceeds to ~~note~~ remark briefly on some of the more salient points brought to notice. He observes that on the whole the Conservator's report is favorable as regards the progress made since Capt Campbell Walker's detailed examination in 1878. The appendices to Colonel Beddome's report furnish particulars of the number and variety of trees existing in 1878 and at the present date -

3. Taking the plantations in the order in which they are dealt with