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# <u>A Forest Officers Diary, Darjeeling</u> <u>District</u> 1869 - 1874

Ref. EHC/206



Edward Hall, c.1932

## Editor's Note

All diary transcripts have been produced with the intention of faithfully reproducing the text of the original manuscript exactly as it appears. All spellings and punctuation marks have been transcribed as they appear; where clarification was thought necessary by the transcriber, an explanation, current spellings or punctuation have been added in square brackets.

An intensive account of valuation surveys undertaken by a conscientious government officer. A valuable source book for the aboriculturalist, as the observations on the various types of trees dominate throughout, to the exclusion of almost any other interest.

Monday 8th November, 1969 Kurseng / Left Darjeeling about 1 o'clock in company with M. Oakley, M. Connolly Having sent / the baggage coolies on at midday / we at Kurseng 20 miles south / of Darjeeling abut 60m and the coolies / arrived with the baggage at 8 pm / Tuesday 9th November 1869 camp at the / village of Munjooa. / started from Kurseng about 8 am and / leaving the Punkabaree Road at the entrance / to Castleton, descended into the valley / of the Balasun, through the tea estate / of Ambootia. This tea plantation is in / excellent condition / due both to natural advantages of / soil & exposure & flat situation as / well as to careful management. / The rows are 6 feet apart, the plants 3 feet / apart. Young plants have been put in / between the rows in the older part of / the plantation where the old plants are / past their prime. Followed a path / leading down to the Balasun River in / the south of the Managers House / & descended very rapidly but with some / difficulty - into the bed of the river / At Namshoo, where the stream / of that name unites its waters with / those of the Balasun. Crossed the BA / Lasun which is now fordable & skirted / the right bank of that river down to / The Delta forms at the mouth of the / Murma stream a Western tributary / of the Balasun. The flat ground in / this locality is of some extent. It / is called Pinglo Tar. Breakfasted / on the bank of the Murmaj ...../ thence proceeded on to ...... the Munjoo / Jhora. Made a forest survey from / the side of that valley up the spur / to the village of Munjooa, the / coolies had been sent to the same / village by an easier route from the / Pinglo Tar. The path pursued in the / survey proved to be of the most - / - precipitous & obstructed des / cription. ..... trees are said to grow in / considerable numbers near the / Munjooa stream, but not on the / ridge. At the top of the ridge there / is a little cotton cultivation on a level / spot whence a second hill rises / to a considerable elevation. The latter / had to be ascended before reaching / the village of Munjooa. Arrive / at the camp about 6 pm. /

## 10<sup>th</sup> November 1869. /

Left camp about 7.30 am & proceed along / the most frequented pathway in the valley / of the Balasun River by the banks of / Munjooa stream. Held a forest sur / vey on the way down the Munjooa Valley / & closed it on reaching the main stream. / Followed the Balasun down to the / Doodoohajhora. Breakfasted at noon / on the banks of the Balasun. Both / banks are well wooded, but the forest / land is almost entirely in the hands of / private owners. In the level ground / where the valley of the Balasun opens / out on emerging from the hills into / the plains of the Terai, Siris Khair, / Amla Simul Gomarce Falecta / were observed to be the predomin / ant species. Proceeded a short dis / stance up the Doodooa stream in / the most of torrents of rain, the / coolies had to be urged forward / much against their will - reached / a small hamlet occupied by / ..... In the midst of long dense grass, found that we had missed / the road, obtained a guide who / led us down the Doodooa stream / & then up a steep ridge through / deserted clearances made for cultivation / & abandoned after reaping one crop / dense long grass & bushes & shrubs / now occupy the place of fine tim / ber forest and dead trunks bear / witness to the destruction of timber / which this ..... cultivation has / occasioned. Came to a small ham / let of Nepalese engaged in the / same kind of cultivation who / pointed out a suitable situation / for pitching camp on top of / the ridge overlooking the Terai / & the Chonga Nuddee a feeder / of the Balasun. Then we encamped / about 4 pm /

Thursday 11<sup>th</sup> November 1869 /

Started about 8 a.m. after sending / off the Coolies along the ridge lead / ing to Tinling and Phooghurhee. / we followed the pathway leading / South towards the Terai along the / watershed between the Doodooa and / Chonga streams tributaries of the / Balasun. We failed to ascertain the / line of demarcation between the Chonga / River and the land applied for / by Mr. Lloyd. The whole tract / has been much cut up by joom / cultivation. Large Sal trees have been / killed by the fire and many / Sal logs strew the ground. Some of / this dead timber has been sawn up into railway sleepers, but / sleeper cutting operations carried / on in every part of the forest does / not Supervision in remote / localities is impossible. succeed. Hence / the advisability of brining all waste / timber to the ..... Depot where / the work of sawing can be closely scrutinised and the slabs & small / ...... can be fully utilized / young Sal was observed springing / up in great numbers on the top / of the ridge, even in the midst of / long dense grass. This gives pro / mise of a natural renewal of the / forest. The natives said that Sal / was less plentiful in the lower / slopes, but I am doubtful about / this. Returned to the camping ground about 11 am & after a halt / of about an hour, pushed on / in the track of the baggage collies / The route lay through deserted clear / ances for a considerable distance, / the ground ascending all the way / sometimes very steep, at other times / less so. Most of the hills are cleared / & either under cultivation or have / been cultivated & abandoned to nature. / The Mechi Valley is distinctly seen / below at many points along the / route which follows the water / shed between the Mechi & the Balasun / we reached Tin Ling

village about / 3 p.m. Here the land assumes / the form of a plateau or table land / & the soil appears to be of excellent / productive quality. Many of the / fields have been ploughed. The peo / ple appear to be prosperous. Beyond Tin Ling the road ascends another / stage of the hills, at the top of which / the ground is undulating on the / top of the ridge was far as / <u>Phooghurhee</u> where the camp was / pitched about 5 p.m. /

## Friday 12<sup>th</sup> November 1869.

Sent Mr Overseer Ward / and his collies on to the Merig & Thurdo Spurs to de / marcate the forest estates of these names transferred / to the charge of The Forest Dept. Some years ago, when / when they were given up by their former owners Mr Barnes. / Descended into the Valley of the Balasun by the / village of Munjooa, which is situated on a plateau / similar to the Cursing Flats on the other side of the / valley & probably at one period of the earths history / these corresponding plateaus were united & after / wards severed by the flow of water. Crossed the Balasun / at the confluence of the Numshoo & / Balasun & ascended to the opposite slope through / the Tea Estate of Sengell the road through which / is well made & kept in good repair. Tea / cultivation here is said to pay well. The slope / of the spur is not very steep & / the soil has not been washed away. / This plantation & that of Ambootia are / said to be the two best on the Dar / Jeeling Hills. Green tea is now manu / factured at Sengell & also by one other / planter on these hills, but the secret / of the manipulation & the process of / manufacture is not as yet generally / known. After reaching the Darjeeling / & Kurseong Road I rode on to Sonadal / & thence into Darjeeling arriving there / at 7 p.m.

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Journal of a forest tour made by Lieut. Stenhouse / Off. Conservator of Forests through the <u>Sikkoni</u> Bhootan / <u>and Assam Divisions in the dry season</u> <u>of 1869/70.</u>

I left Darjeeling in company with the Assr Conservator of / Forests Sikkin Division Mr Oakley on the 24<sup>th</sup> of Nov.m / about 12 o'clock. We descended by the Lebond Road / into the valley of the Rungeet a large tributary / of the Teesta River & the North Boundary of British / Territory. The descent to the Rungeet is steep it / leads into several tea estates. The Mid slopes of all the / mountains are almost destitute of trees, having / been cleared & brought under cultivation by the hill population / long before the British occupation. The lower / & higher slopes as well as the mountain summits have / not been cleared to any extent although oc / casional encroachments have been made on / both the temperate & tropical forests by / squatters for the cultivation of Indian / corn. About two miles from the river we entered / Sal forest, the first trees observed were of poor appear / ance, but further down the growth of Sal improves / Saj predominates in this forest, a harder / wood than Sal but inferior in durability & general utility. / Only a few larger trees of any kind were seen on / the way down to the river. We encamped on the / river bank .... The distance from Darjeeling is about / 8 miles. /

<u>25<sup>th</sup> November 1869</u> The coolies were started off to / wards the Teesta with the baggage about 8 a.m. we then crossed / the Rungeet on a bamboo raft & proceeded to inspect the / Sal Forest situated on the other side & belonging to the / Rajah of Sikkim. 1200 large Sal trees of the forest have recent / ly purchased from the Rajah of Sikkim at 2/8 each / 1100 have been selected & marked, of these 20 were / seen, All of them trees of large size & excellent growth. / The large trees with crooked stems have been rejected. / A number of pine logs (Pinus Longifolia) about 40 to 50 feet long / & 6 feet in girth have been col / lected on the river bank. 1000 fine logs were / purchased from The Rajah of Sikkim a year or / two ago at 2/- per tree. Of these 440 have been /  $9^{th}$  page

dragged & stacked on the bank. The rest are still / in the forest and must be got out as soon as / possible. Of the logs collected a number have / been swept away by landslips & high floods / a few of these have been stranded on the bed of / the stream. Every effort must be made to recover / all the missing logs. After making a valuation/ survey through the Rajahs forest which extends east / ward only as far as the Mongprojhora, we / returned across the Rungeet River & proceeded / along the Kalinpong & Dumsong Road / made along the right bank of the / Rungeet River. There is not much Sal in the / immediate neighbourhood of the Rungeet. A few / large trees were observed & others of smaller size. / One of the largest we met was being cut / to make a large boat for floating purposes. This / manufacture necessitates a great waste of timber / it appears advisable therefore to use other wood / for boats. There are many trees of other kinds such / as Simul, Dharikat Gyookumut, Sitsal, Lakric / ac which are used by the natives for boats. The / forest on the right bank of the Rungeet appears / in many places to be poor growth / probably resulting from the effects of .... Culti / vation, in which the trees are either cut down / & burned or lopped of their branches & scorched / & chance the conflagration which ensues. Pollard / trees consequently predominate in the forest where / this kind of cultivation has been practised, but / the stems though numerous are seldom / straight, and do not as a general rule yield / good timber. On our way to the Teesta we / observed a large clearance of this description / made only a year or two ago, although the Sikkin Forest rules prohibiting such cultivation without the / permission of the Forest Officer, 10<sup>th</sup> page

have been in force since / 1865. Forest reservation is merely nominal / if the forest reserves are not protected from such / encroachments. These reserves are at present under / the nominal charge of a <u>Mandul</u> or Head Villager / who collects the rents from the squatters & whose / interest it is to increase the number of squatters / This conflicts entirely with the interests of forest / fires are the three great enemies of forest / improvement and should not be tolerated when / it is possible to get rid of them: Squatters rents / & grazing dues are poor compensation for / forest destruction or at least deterioration. / It may be necessary to curtail the extent / of our forest reserves in order to ensure their / protection of all the compact cleared lands / included within a few of the reserves might / be made over to the charge of the Deputy / Commissioner and the lines of demarcation / be made to follow the outlines of existing/ forest. But all squatters must be got rid / of out of all the forest reserves as soon / as this can be effected without hardship to / present

occupants. This can be done by giving / them notice to quit the reserves when they / abandon their present clearances, which they / seldom cultivate for more than three years & / generally for only two. / The Rungeet River is not seriously obstructed / in its course to the Teesta & appears to be capable / of floating timber all the year round. The forest / on the left bank of the Rungeet ...... the ..... / Projhora to the Teesta belongs to one of the / Chief Lamas of <u>Sikkin</u>. It appears to be / rich in Sal.

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Mr. Vanzooloccum a contractor / has purchased trees in this forest, & his sawyers / were seen actively employed in cutting up / logs into sleepers. The Teesta is a magni / ficent stream for floating purposes but it / is seriously obstructed by rapids & large boulders / at low water & unfortunately floating / operations cannot be carried on in the rains / owing to the deadly malaria in this valley / at that season. The can suspension bridge / across the Teesta is about a mile below the / mouth of the Rangeet. It is at present un / safe & the passage across was effected by / means of a bamboo raft. The current / is extremely rapid & the snow water very / cold. This makes it difficult to swim / ponies or cattle across, but it can be / done with proper management & care / Mr. Oakley here returned towards Darjeeling / & I encamped a little way up the hill / on the other side of the Teesta River./

<u>26<sup>th</sup> November 1869</u>. Started early & continued the / ascent up the hillside by a winding zigzag / road up to the Police Station of Kalinpong / which is situated on the summit looking / down upon the Teesta on one side & its ..... the Relee Stream on the other. The slopes border / ing on the streams are all more or less / wooded. On the way up the following trees / were seen in considerable numbers, but there / is no compact forest – the trees are scattered / over low jungle of shrubs & bushes. The names / of the trees are given in

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The order of their predom / inance (Gordonia Wallichii) / Chelawnee, foliage dense, leaves ovate lancerlate / glossy green, downy underneath, bark brownish / grey very thick & rough. It is called Chelawnee / from the itching effects of the sap if rubbed / on the skin. This tree is now in seeding on these hills / the seed is a hard woody capsule, five cells The / wood is much esteemed by the natives. / Siris, an Acacia with whitish ..... / smooth bark cracking transversely in / circular seams circumscribing the stem. / Leaves small, compound pinicate. .... / Wood of good quality. / Saj, a tree of some value with large long ovate lancerlate / leaves arranged in opposite pairs on the / branches. Some of the tree are now in flower, flowers / in long drooping tufts or catkin like spikes with / red bracts which give the flower a red appearance. / The bark is smoother than that of Sal / & the longitudinal cracks are smaller & closer / but otherwise there is much similarity. / Simul Bombax The white cotton / tree easily distinguished by the circular Malabaricum. arrang / ement of the branches & leaves round a common / axis. The axillary leaves are seven in num / ber & lanceolate in shape, smooth. This tree / which generally is very cylindrical is much / used for boats. /

Toon Cedrella Toona layers used for tea boxes/, easily distinguished by the compound leaves / which are arranged in opposite pairs / on long & somewhat bending stalks, bark speckled / branches forming an acute angle

with the stem / foliage in bunches. / A <u>sterculia woodal</u> the bark of which is twisted into ropes distinguished by its larger palmate leaves / & whitish bark. / <u>13<sup>th</sup> page</u>

Sowr, the bark of which is used by Dhobies in washing / leaves compound, alternate, small. Bark rather / smooth peeling off in transverse scales encircling / the stem. /

Wooteesh, a tree which yields a good wood. Puddum, (Ceracus Puddum) now in flower 5 petals / Stamens indefinite, Pistil One, leaves small, Lanceolate. / Kuratee Beesh, the bark of which is used by the / natives to poison pools for the purpose of catching the / fish. / Mowah, not the same as the Mowah, not the same as the Mowah of the plains, / Leaves compound, Pinnate. 9 unequal flowers / in long drooping spikes. / The slope down to the Rillajhora South of / Kalinpong is gentle & undulating, well adapted / for cultivation. It is thinly interspersed with / trees, probably left standing in former clearances / for in this part of the hills the squatters ..... lop the branches of the large trees in their / clearances & burn the loppings along with / the undergrowth. This is a more econo / mical mode than that of making a / complete clearance of all trees. After some / years rest, when the side branches of the / standard trees and the growth / of shrubs and bushes have attained sufficient t/ size the cultivation sometimes returns to / the same spot & repeat the operation of / clearance. / proceeded forward to the village of Echa / on the road to Deemsong & joined the other commissionaires camp there. On the left / of the road at the top of the ridge some forest / was visible, but hardly any skirting the / road.

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27<sup>th</sup> November, 1869. Started early & proceeded / along the road towards Dimsong the frontier / Police Post in the direction of Bhootan. / about a mile from Echa the temperate / forests of this subdivision were entered, the / way led along the crest of the hill & then / over the other side, The road to Daling / lies along the South slope. A valuation / survey was made through this forest / for a distance of about 2 miles. The forest / was found to be composed chiefly of / Oak & Chestnut as far as regards valuable / timber trees, but a variety of other trees of / inferior kind were noted. The whole range / of mountains between Dumson & Daling kote is clothed with forest on the top & upper slopes, and / in many places the forest covers the hill / sides down to the Rungpochujhora on the North / & the Rilleejhora on the South. The view from / Dumsong is very extensive. The mountain / ranges of Sikkin & Bhootan appear to be / all crowned with belts of forest of various / width. The mid slopes are in most / cases selected for clearance & cultivat / ion for where the forest exists midway between / the top of the mountains & the bottom of the / valley, it is generally inaccessible, or very difficult to work. Encamped at Dumson.

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## <u>28<sup>th</sup> November 1869</u> – Sunday. /

<u>29<sup>th</sup> November 1869</u>. Started early and took the / road towards Dalingkote intending to go round / the head waters of the <u>Rillee</u> stream in order / to inspect & estimate the contents of the forest in / that direction which I had

heard was composed / of Oak and Chestnut associated with trees of other / kinds. Two valuation surveys wee taken on the / way the results of which are given in the / great survey journal. The road is very <u>variegated</u> / in its gradient, at one time level, at another a very steep ascent – owing probably to the / trace of the road having been carried along the / crest of the watershed. There is / a good deal of bamboo intermixed with this / forest. WE left the road to Dalingkote, / about a mile on this side of the Labah / Police Station & then followed a pathway / which leads down towards the Teesta river along / the top of the ridge separating the waters / of the Rillee & its feeders from those of several / small streams which flow south to the plains.? The forest throughout maintains much the same / character & composition. Oak & Chestnut enter / largely into its constitution as will be seen / from the results of the forest surveys made. / Encamped near the source of the Jeetcho one / of the small streams above referred to. /

30<sup>th</sup> November 1869. Started early & following the / pathway before mentioned gradually descended / to a lower elevation, the forest becoming /

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Less compact the lower we went but the under / growth became more dense & luxuriant - / canes, bracken & Bamboo clumps were very abundant, of the / trees observed, Kuparice, Kowlah, Mowah, / Pahlay, Kuranee, Booke, Barjiral & Chest / nut, but the last three are not so plenty / ful as on the hilltops, still in some / places, Chestnut appears to be remarkably / reproductive & numerous, fine young chest / nut trees were met with in various places / during the descent. Several abandoned / clearances were traversed, some con / verted into grassland covered with the common bracken fern - others are oc / cupied by a luxuriant vegetation of shrubs / & bushes, interspersed with large trees / blackened & partially burnt by the looming fires. One or two in the lowest / part of the spur are of recent formation / covered with stubble & other remnants of / this years crop. Afterwards / the pathway ascends a high / ridge on the top of which not / water can be obtained at this season of / the year. We were therefore forced to encamp / about halfway up the ascent / near the last spring of water. In the / last part of the ..... a large number of / young Cinnamon trees or trees of that genus were observed. /

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<u>1<sup>st</sup> December 1869</u>. Started about 7 a.m. and continued the / journey towards the Teesta river along the same watershed / the path led through forest of Chestnut & White Magnolia / associated with some Oak. A valuation survey was made / through a portion of this forest which appeared to be of / an average character & representative of the general / condition & composition of the whole. There are numerous signs / of old clearances & the probability is that most of this forest / has at one period or another been cut down. The ma / jority of the trees exhibit several stems springing from / one base. Further down the tree forest becomes / more & more sparse, interrupted by patches of / low jungle, until an approaching the village / of Simithar several fresh clearances are cropped / & the forest almost entirely ceases. Since that / is a

more permanent village / than the gener / ality in these hills. The inhabitants cut their / jungle or forest in a rotation of about then / years. They find it advantageous to leave / most of the trees standing, but they lop / off all of the branches as well as the tops / which give the trees a very mutilated ap / pearance. The object of loping the branches / is two fold 1<sup>st</sup> to add fuel to the flames to / fertilize the ground with the ashes. 2<sup>nd</sup> to re / move all cover from the clearance which / would check the growth of the crop & lessen / the return. The object of sparing the trees / on the other hand is to enable the forest to / recover itself sooner & be ready for another / cutting in about ten years. This appears / to be the most legitimate & traditional made / of procedures that

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Can be practiced on these / mountains, villages and should be encouraged to remain / permanently within a certain circle of / hill country which might be made over / to them under settlement. There are however, plateaux in these mountains / where permanent / cultivation might (can) be easily practised / on fixed areas & where shifting culti / vation should therefore not be tolerated. / From <u>Simithar</u> we proceeded down the / slope by a steep descent to the small / village of Sooroo near the Reyoong / Jhora & there encamped. /

2<sup>nd</sup> December 1869. Resumed the march / at an early hour & followed the crest / of the ridge leading Northwest. This / ridge is covered with Sal commencing / close to the clearances made by the villagers / of Sooroo, indeed more than one tree / had been blackened & one had been / killed by the heat of the conflagration in the adjoin / ing clearance. This proves the real / danger of encroachment on the Sal / forest of these valleys & that without / compact & ..... & / strict conservancy, little or no forest improve / ment can be effected & only the gradual / deterioration, if not the denudation /

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Of all the lower forest will ensue. / Sal evidently prefers the dry / ridge to the steep slopes & low flat ground. / It appears to / demand more light & air than Teak for / its successful reproduction & every little / piece of open ground in the midst or on the / borders of the Sal forest is immediately oc / cupied by a dense growth of young Sal. / Chalaunee does not reproduce itself so abundantly as Sal. / The road now lay for some distance along / the bed of the Revoong & after the junction / of this stream with the Rilee the path / led along the left bank of the latter. / Except for a short distance to cut / off a long circuitous bend. The Rilee / had to be forded twice. A valuation sur/vey was made on the ridge & slopes / previously mentioned, and again the / level ground bordering the left bank of / the Rilee. On reaching the Teesta River / the passage across was effected in a / canoe made of Kimboo wood & the jour / ney was continued along the right bank / of the Teesta. The Rayeng Jhora was / crossed a little way down on the other / side of which the forest departmental / road begins. This road or path is in a / very bad state, in several places very / dangerous. Encamped at the Rayeng inspection / hut.

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3<sup>rd</sup> December, 1869. Friday. Followed the forest / road from Rayeng down to Sivok, / the rope station where timber in transit / is stopped. The channel of the river is much / obstructed by rocks & rapids, ut the expense / of removing the rocky obstructions & improving the channel would be very great & / the project must therefore be abandoned / in the present state of finances. The sleepers / stored along the right bank of the Teesta from / Rayeng downwards appear to be of good size & / generally of first class guality. There is not / much Sal in the immediate neighburhood / of the river, but it is said to grow / in considerable abundance on the ridges. The timber felled & dragged last year is / not all full sized, but the proportion of / undersized logs is not nearly so high as / in the batches of logs brought out in / previous years. At Sivok the timber boom / has not yhet been stretched across the river / but the iron cable and the large ... / hawser & boat chain are ready for the / purpose. Encamped at Sivok. Here the Teesta River emerges from the hills & com / mences its course through the plains / because it is the nearest point / on the Teesta to the

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<u>Sillingoree</u> Depot / and a good carting road to / Sookna in order to see some of the forest / depots in that neighbourhood. The road / leads westward not far from the foot of the / hills. The distance from Sivok to Sookna / is about 12 miles. the forest in the <u>Terai</u> / contains abundance of young Sal of good / growth in dry localities where water does / not lodge in the rains. In low swampy / ground there is little or no Sal. Many of / the thinner parts of the forest have suffered / much from the ravages of fire in the long grass which forms the undergrowth. / The Sal forests of the plains have all been / worked to exhaustion by railway sleeper contractors years ago, & some of the Sal / forests on the outer hills have also been worked by these contractors. The forest / depots of Sookna are on the slopes of the <u>Jhoras</u> / & most of them very difficult to access / cart tracks have however have been made lead / ing up these small valleys & ravines & the / sleepers are being brought out in carts / to Sillingoree. Followed one

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of these / cart tracks up the Sooknajhora & / saw where the sleepers are collected in / that part of the forest. After this inspection /. I rode to Sillingoree by the new road. / Forest Depots should in future be established / in accessible situations such as on the banks / of a waterway or on a roadside. The terms / of contract for delivering of timber should be / worded with a view to carrying out the / above rule in every case. Reached Silli / Goree about 4 p.m./

## 5th December. Sunday./

<u>6th December 1869</u> - Monday - inspected the elephant / establishment in the forenoon and the forest / office books & records in the afternoon. /

<u>7th December 1869 Tuesday</u> - Drew up a plan of / operations & memorandum of instruction for the / guidance of the ...... contractor carrying on the / work in the <u>Sikkim</u> Division during the / remainder of the current year. engaged also / in other office work. /

8th December Wednesday. Engaged in office work.

 $\underline{10th\ December\ 1869}$  - Friday. Left Sillingoree about / 10 a.m. & proceeded to Muttagurka where /

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large ...... is held weekly on this day. Rice / mortars & pestles of Salwood, and bowls of <u>Gom / Aree & Siris</u> were exhibited for sale. Left the main / road at Muttagurka & proceeded West & / South West along the way to Bagdogra Village / & ...... crossed the two branches of the / Balasun besides one or two other smaller / streams. The country appears well popul / ated, most of the original forest & jungle / has been cleared away & a large portion / is under cultivation. The system of <u>Jotes</u> prevails, the Jotedar or Lease Holder of / the land sublets small portions of his / farm to power cultivation to whom he / lends a pair of bullocks & from whom he / takes half the produce The <u>Jotedar</u> & / his sub-tenants form small village / communities. In many cases the Jotes / contain forest land. In future it would / be wise to make it a ....../...... in the Jotedar to maintain a certain portion of his forest property intact for the use / of himself & his sub tenants. / Leaving Bagdogra Village to the left we / turned northward to the Dulkajhar / a thick forest of young Sal interspersed /

**<u>24th page</u>** with cane brakes & swamps. Encamped / on the border of this forest near the village / or hamlet of Doomreegooree.

11th December, 1869 - Saturday. Left Doomree / gooree about 9 a.m. & proceeded along the / boundary line of the Dulkajhar forest / reserve. Some of the old boundary stakes / are still standing but they are few and / far between & several have been / knocked down by wild elephants who / are abundant in this forest & have / done a good deal of damage to the young Sal trees. Nearly all the large trees / have been removed years ago - only / one of about 5 feet in girth was seen / & that was forked / & had probably been left on that / account. Skirted the dulkajhar / keeping to the open ground outside / until we reached the hamlet of / Bengdobee thence followed the / road to Kano Chowdr Bhita / which leads into the Dulkajhar / forest. A short distance on the other / side of the 25th page Hoorlia Nuddee we discov/ ered after a short search the stumps of 26 Sal trees / of about three cubits in girth, which had felled & carted away. The guide / said that the trees had been cut by / the woodmen employed by Radee / Sing & his son Chultur Daree Sing / resident either at Bodah, Zillah / of Rungpore or at Chopokria. This / man is said to own the Kano Chow Dri Bhita and several other / jotes in the neighbourhood which / contain forest & he has evidently / taken advantage of the fact to / encroach on the Govt Reserve & / work it along with his own / forest. The boundary line could / not be found, but by an in / spection of the map it was <u>nearly</u> / certain that the land belong to the Govt. such encroachments will / be repeated until the boundary / lines are clearly defined & forest / watchers appointed to <u>26th page</u> each forest / district & made to do their duty. / In this case the boundary must be / identified & further search made / for proof against the Jotedar who should then be prosecuted in / the Hakowa or Darjeeling Crim / inal Court for trespass & misappropriation / of Govt.. property. A forest valuation / survey was made through a portion of / the Dulkajhar Forest the result of which / is given the the Forest Survey Journal. / returned to the open ground & proceeded / North to Garridhoora at the foot of / the hills on the road from <u>Silligoree</u> to Darjeeling. Distance 30 miles. /

## 12th December 1869 - Sunday.

<u>13th December 1869</u> Monday. Returned / to Garridhoora by 2 p.m. inspected / & examined the teak experimental / plantation - area about 5 acres. / <u>27th page</u> in an average line there were found / 16 old seedlings & 19 new ones in an / area of 520 feet by 6 feet or / 3120 square feet, or 488 to the acre / most of the plants are small, not more / than 6 inches in height but there are some e/ plants of exceptionally rapid growth, one two years of age is now 6 feet in height /this is the largest teak plant in the plantation. There are some isolated Sal trees in the / plantation. I doubt if teak will grow / well in ground suited to the growth of / Sal. the soil appears to be too / sandy. It doe snot appear advisable / to spend money on plantations in these / remote localities but to farm / plantations only in places near to / large timber markets or close to large rivers. / Proceeded on to Sookna Haut a distance of 8 miles & thee en / camped./

<u>14th December 1869</u> Tuesday. Sent the / elephants on to Sivok by the main / road & proceeded with the survey team up / the new cart road & then along the / watershed of the outer hills whence / the Sookna Streams & its feeders flow / to the plains. Made a circuit <u>28th page</u> round / the head waters of the Deaarese streams down to / the old Sookna inspection hut nut / far from the Mahamiddee river. Found / that far from the Mahamiddee river found / that the Sal trees on these / outer hills have been almost all / cut down and removed in a very reck / less manner. There are hardly any / seed bearing Sal trees left. the conseq / uence is, there is every probability of Sal / disappearing entirely in many portions / of this forest. there is little or no / cover, the undergrowth is long grass / & the jungle fires kill every struggling / ..... have it all their own way. /

Went on to Sivok which was reached late in the evening /.

#### 15th December 1869 Wednesday. /

Inspected the Hauser Boom stretched across / the Teesta to stop timber floating down, / The iron cable is too sort 100 feet / more wanted & 4 buoys to float it & moor it so as to lessen the strain on / the shore ends, A common wooden / capstan is also wanted to secure proper tension.

**29th page** 16th December 1869 Thursday. Made / A forest valuation survey on the / hills of Gooramara whence the Goolma / stream rises. Found the forest / poor in large Sal trees. Most / of the outer hill forests have already / been overworked & carelessly worked / the sleepers cut have to a great / extent proved to be rejections although / most of them have been paid for / at full rates. The sleepers should /

have been piled on the cart tracks / but they are generally found hastily / piled up in inaccessible parts of / the J.....hs, whence they have now to be ..... out by coolies./

<u>17th December 1869</u> Friday. Sold the 1st & / 2nd class sleepers at Rayeng & Sivok to dear ......for Rs 2/12/- each. Left Sivok about 2 p.m. & / proceeded along the road to Sillingoree. Branched / off this road at ....... Mechi village & traversed / the Bycantpore forest to phoolbaree ......... / on the Teesta. the boundary line between / that forest & the Sikkim forest reserve is / not sufficiently wide to keep out jungle / fires. In the Bycantpore **30th page** forest .....ing is allowed by the Rajah of Bycantpore / Sal is cut down without check. Villagers / cut Sal for ....., mortars, pestles, / bowls with perfect freedom & the ..... of the forest remove large quantities of / logs 3 feet in mean girth from this forest every year. Encamped / on the bank of the Teesta near a Mechi Village.

<u>18th December 1869</u> Saturday. Resumed / the journey towards <u>Julpigoree</u> passing / through the <u>Bycantpore</u> forest / in which the survey was held - there / are no large trees left in this forest / but young Sal is in abundance. There / are two claimants to the ownership of / this forest, an illegitimate & a legit / imate son of the former Rajah. At pre / sent there seems little prospect of obtaining / a lease of the forest on behalf of Govt. / - The present lesees will enjoy the privilege / of cutting & removing timber for 3 years more. / Reached <u>Julpalgoree</u> after dark, distance / about 18 miles & from Sivok about 25 / miles. /

## <u>31st page</u>

## <u>19th Sunday</u>

20th to 29th December 1869. At Julpalgoree / engaged in office work. /

<u>30th December 1869</u> Thursday Selected an appar / antly suitable site for a timber depot at / Julpalgoree - on the left bank of the main / creek which intersects the station & close / to the house of a Mr <u>Howits</u> who wishes / to dispose of the house at a fair price. He / says it cost him 1400 rupees. the house / might possibly suit a forest office / & timber depot house for the Forest Officer / in charge of the Julpalgoree Forest Division. / Met one of the native candidates for the / office of Asst. Conserv. of Forests. He is the / Head Clerk in the Deputy Commissionaires Office - Criminal side. He does not appear / to me to the the kind of man for such a post. Sedentary habits suit the / Bengalee best & active duties are / irksome to him. Visited the local / anglo vernacular school, only two / of the boys know English tolerably well. / Ram Coomar, a boy of <u>crack behar</u> service is anxious to enter the / Forest Department. I hear he is a boy of / strong constitution & active habits & / will probably prove to be a useful forester / I have not yet met him, but / he has been told to meet me at <u>Alipose</u> / on <u>**32nd page**</u> 6th January./

We left Julpalgoree about 3 p.m. & / proceded to <u>Dohohni</u> 6 miles up the river / Teesta. There is a small depot thee of / small logs called Kala Kum .... jungle / out of the neighbouring Sal Forests; many / of them are hardly worth bringing out. / From Domohni proceded to The bridges are in many cases / broken down. Reached Mynagoree after / sunset & encamped there. /

<u>31st January 1869</u> Friday. Left Mynagoree about 9 a.m. & proceeded North towards / The Ramshai Forest, distance 12 miles. / The Ramshai Forest, distance 12 miles./ Entered the Borodighee Forest West / of Ramshai & ..... Forest young, hardly any large trees, visited / & inspected the Ramshai Experimental / teak plantation, very

few vacancies / but plants generally small & sickly. / - soil apparently rich above but perhaps / too sandy underneath for the successful / growth of teak. This plantation has / cost about 150 rupees, it is only about an acre in extent - these experimental / **33rd page** plantations are expensive & it / will not be so profitable to grow Teak / in such remote localities as in these / forest denuded tracts of lower Bengal / which are close to waterways & / to large timber markets. / Crossed the Moortee & the Dohldoka rivers / & went on to the village of <u>Bamandangar</u> / on the Dinah stream - Total distance from / Mynagoree 18 miles. The <u>Tehsildar</u> of <u>Tendoo</u> named <u>Demrah</u> whom we met here has been cutting / up drift logs of Sissoo on the strength of the / late orders of the Commissioner permitting / Villagers to cut up old logs of Sal & Sissoo / for their own domestic & agricultural pur / poses & to obtain permits to remove remnants of timber./

<u>1st January 1869.</u> Saturday. Left Baman / Dangar about 9. a.m. and proceded down / the Dinah stream, on the right bank / of which the Tehsildar pointed out three / logs which he had cut up into rice / mortars. Prohibited him from repeating / this offence & told him the matter is to be / reported to Colonel Haughton. It is probably / that all villagers follow the example / of this Tehsildar more or less in interpreting / the meaning & the extent of the permits .... given by the Civil Authorities. there is a / good deal of Sissoo forest along the banks / of the Dinah stream. The boundary / **34th page posts** demarcating the forest reserves are too / far apart. The intervals should not exceed 100 yards / in open ground & long gaps & / tree jungle they should be much nearer. / The planting of Siniul branches in alignment along the outskirts / of the forest reserves might be tried in / the beginning of the rains. / beyond the Sissoo reserves on the / banks of the Dinah the country tra / versed is one sea of grass interspersed / with a few patches of cultivation. / the villagers are Bengalees, Mechis & / Garrows. Reached the confines / of the Mooraghat Forest about 2 p.m. This / forest extends away North as far as the / hills & South for many miles. It was / 5 o'clock by the time we reached / the Garrow village where the main work of extracting timber from this / forest is carried on. The trees cut are / mostly six feet measured at the cut. / They should have been measured at 6 feet / from the ground. The cart trucks have / been well made, without too much / care being bestowed upon them. We / went down to the depot on the / banks of the Noonaise stream which / is capable of being used for floating / all the year round. A large number of logs / have been collected here some of / these are crooked but the majority of them / are of excellent quality in form of growth / & large size. / The Mooraghat forest appears to be on the whole / rich in Sal & contains a considerable / number of mature Sal trees ..... / many has not yet been properly ...... / Tigers abound - seven bullocks were / killed last night, their carcasses found / this morning close together & two other bullocks / are missing. The cart men are greatly / discouraged & disinclined to continue / their work of carting timber./

2nd January 1869 Sunday

3rd January 1869 Monday. Started early & made two surveys through the upper Moora / Ghat forest & then proceded North East across grassland for miles occasionally inter / rupted by open meadows & small villages / of Mechis crossed several dry water courses. the first village was called Zinteepara, / the second Bashoopara. Water is very / scare in the high land / of the Terai except just at the foot of the hills/

There is a little mixed forest on the banks / of the Kalapaninudee, consisting chiefly / of Khair and Seet. Traversed this forest / in a North Easterly direction & reached / Bunda Pani at the foot of the hills at / 5 p.m. distance existence of a substratum of impervious / clay on top of which the water loops / or flows till it finds an exit some miles / from the hills at a lower level.

5th January 1870. Wednesday. Left Bencha / Para at about 8 a.m. & followed the road to / the Bencha Police ...... on the Torsa / river - obtained guides here to Godadabree./ The way to the Police ...... lay through long / grass jungle - mixed forest was seen to the / North along the foot & on the slopes of the hills / towards the Valley of Torsa. this forest is / said to contain Sal trees of large size. / Crossed the Torsa river which is forded / with difficulty even now. the old channel / & the intervening islands are occupied by / Sisoo forest. No Sissooo of the 1st class / was observed & very few trees of the 2nd class / 3rd class Sissoo & Khair trees prevail through / out this forest which stretches Southward along / the banks of the Torsa river for many miles. / The forest has been demarcated by posts of /

Sal sunk into the ground at intervals / along the outskirts - continued the journey / Southeastwards through the long grass jungle / interrupted by one or two Mechi villages & / their cleared & cultivated lands. No forest was / met with on the way encamped at the village of Godadabree. Probable distance / from last camping ground twelve miles.

6th January 1870. Thursday. Started from / camp at Godadabree about 8 a.m. & took / the road to Notabaree - crossed the Alaookoomree / river which is now almost dry. Beyond the / Alaookoomree the country is covered with open grassland interspersed with stunted / trees but no Sal. A few Mechi villages / are scattered over this track. Entered / Sal forest a little way West of the Garrow village of Joraipara & passing through / that village we / traversed / the Buxa Sal Forest / in a South Easterly direction. A great many / old abandoned clearances were passed, most / of them of old date previous to our occupation. / In most the the clearances all the Sal trees / have been cut down & none of the trees / have sprung up again from the stumps. Sal / apparently does not reproduce itself in this / way at all. In one clearance of recent / date the Sal trees have been lopped of all / the lower branches in order to reduce shade / & add fuel to the flames. The Sal trees thus / dealt with have clothed themselves with new / foliage & lateral branches all the way up / their stems. Most of this forest in this neigh/bourhood is poorly stocked owing no doubt / to the disastrous effects of ..... but there / are patches of compact forest here & / there - crossed the Porohjhora in which / there is a good flow of water sufficient for / floating purposes. A valuation survey was / made along this route as far as the Poroh /stream. Beyond this he forest is still / less compact than that before traversed. / At the village of Oodlagooree on the other / side. Probably distance travelled about / 15 miles. This village is engaged cheifly in / permanent cultivation. Its limits have been / demarcated all round by the Ameen Sur / vey on the inhabitants are Mechis / this race generally avoid heavy forest / but the Garrow on the other hand generally / resort to it & reside inside. their pre / sence & the necessities of ........ cultivate / tion appear to be incompatible with forest conservancy, they must therefore / be ejected from the forest in / a fair and legitimate way. / The boundary path made by the Ameens / is 12 feet wide - cleared by 12 feet long / sticks used to press down the grass in / front & then beaten down

with the feet./ Some Mechis engaged in cutting & removing / Kala Kumbar were met - they said they were employed by the Tehsildar to bring out / this timber for sale under the permission recently accorded by the Commissioner to all / villagers to appropriate this kind of timber / on obtaining a permit from the Tehsildar & / on payment of a nominal royalty. the / privilege appears to be abused and its exercise cannot at present be checked or ....... by the Forest Dept. the whole arrangement / being in the hands of the Civil Officers. /

7th January 1870 Left Oodlagooree at about / 8 a.m. and after traversing a little Sal / forest and then a sea of grass about 3 miles / across in an Easterly direction we reached the road made between / Cooch Behar & Buxa, followed this road / to Rajahbutkowah 12 miles south of / Buxa & after short half thee pushed on / to Santarabaree at the foot of the hills about / 2 miles below Buxa. A few hundred yards / from Oodlagooree we passed through a new / clearance made in Sal forest, the site of / the new Garrisor?? village is also in the midst of Sal / & a number of Sal trees have been cut down by / the villagers. The name of the village is ASOL / formed 2 years ago. One green tree felled by the survey / ..... for a boundary post was noticed. Some logs cut a year or two / ago by Mr. Quiron are being carted along / the Buxa road. The new carts and iron axles / answer very well although for want of tires / to the wheels - they sometimes break down under / logs 6 feet in mean girth & of 30 feet in length / in hoisting the logs on the cart the method adopted / is to take off one wheel & let the end of / the axle rest on the ground, the centre of / the log is then rolled / with levers up the incline till an equi / librium is attained & the axle resumes a / horizontal position when the wheel is / replaced. The log is bound with hemp / rope & dragged with iron chains passed / round the log & then attached to the / first yoke, from 8 to 12 pairs of bullocks / are required to drag each log. /

<u>8th January 1870</u> - Saturday. Went up to Buxa / & met Colonel Haughton. some conversation on / forest matters took place. He verbally agreed / to withdraw the permission given to the Tehsildar / to grant permits for the removal of timber / remnants from the Govt. forests if the system / is found to work badly. I brought to his notice the instances of the abuse of these pri / vileges which have come under my own ob / servation during my tour/

9th January 1870 - Sunday/

<u>10th & 11th January 1870.</u> Remained encamped at Santarabaree at 8.30 a.m. and left the Buxa / road at <u>Minagdon</u>. Followed a road leading / Eastward along the high ground at the foot / hills. Crossed the Bala Nuddee which / rises near Buxa, crossed also several other/ streams and came to the banks of the Jangtee / Nuddee after marching about 3 miles. A sur / vey was made on the way but the Sal trees/ were few and far between. Seedka & Chala\_\_\_\_ / are abundant in this locality. Thence followed the course of the / Jangtee River for about 3 miles downwards/ & then struck east through num / erous cotton cultivated clearances made / by Mechis. After marching about three / miles we came to a halt at / the fork of land formed by the junction / of the smaller Jangtee & Tooteree streams where we encamped. / 13<sup>th</sup> January 1870 –Thursday

Starting from / camp we proceded down the bed of the Tutaree Nuddee for a short distance & then / eastward across the extensive open / Prairie land, gradually turning south / ward & keeping a southerly course for / several miles through the same kind of / country. Patches of Sal forest were / observed towards the east all the

way / along the horizon & smaller / patches stand isolated on the open / grassland. After reaching the Mahakalgoree & Huldeebaree Road / we followed it towards the Rydak / River. Passed through several patches of / Sal forest. Six first class Sal tree stools/ & end pieces were seen close to the road. The bark indicated that the trees had been cut / last year. Sissoo trees have also been cut / down in the Sissoo forest bordering on the / Rydak. This illicit felling has been done / by Cooch Behar Woodmen employed / by Timber Merchants of that state. / Very few large Sal or Sissoo trees / are now to be seen owing no doubt to con / tinuous & unrestricted felling of all trees / as they approach maturity. We crossed the / Rydank & proceded on through high grass / which stabds highest on the main road / to Huldabarge where we encamped. / Met a MR. Betts here who has charge / of some forest land leased by MR Picarde / & MR Linky Govt surveyors from the Bhort Dhurin Rajah. There are three of these / tracts of land . one stretching from the / frontier at Buxa to the Rydak River / This tract is said to contain little Sal / & is very inaccessible. The second tract / is in Dooar Cheering beyond the frontier & / embraces the valley of the Longa Nuddee / where Sal is still abundant. / MR Betts has given numerous licences to / cut Sal beyond the frontier to Woodcutters / in the eastern Dooass. The owners of this / concern are said to have made 7000 Rs / last year & they expect to realize / 20, 000 Rupees this year. Their operations / must be checked by the / Forest Dept, by placing watchers on the / frontier at the entrance of the Longa British Territory to take count of the / number of "Gools" collected on the banks / of the river & floated down & Govnt orders / will be obtained as soon as possible for / the examination of timber in transit from / foreign territory & for the issue of check passes / to be produced lower down. Messrs Picarde / & Linky have also obtained possession of / a large tract of Khan Forest just beyond / the frontier in Dooar Bynee. /

#### <u>14<sup>th</sup> January 1870-</u>Friday

Leaving Huldeebaree, / about 8.30 am. We proceded eastward / & crossed the Sunkon River about 11 am. / The Elephants succeeded in getting across / at a shallow part above the ferry. / Pushed on eastward to Rainiunah / where there was formally a Police T\_\_\_\_\_ / There we could not get any one to show / us the road to Nepoo nor any / supplies of rice. So we were compelled to go on along the high road through the / lower part of the Surraigaonjhar & Notogaon / jhar to the group of Mechi villages / called Koochoogaon. Distance from Huldeebaree probably 20 miles. There / we encamped & here we met MR Renny / Asst Commissioner & one of the / Revenue Settlement Officers. The revenue / is being settled for five years &

\_\_\_\_\_\_ / at from 1/ to 3/ per acre. None of the claims / made by the Rajahs of Bijnee & Sidlee of / Proprietorship in the land have been recognized / by govnt. They are to act as revenue collection / & receive payment at 10 per cent of the / assessments. It is probable that they will / levy more than the Govnt does and appropriate / the excess in addition to the authorized / commission. These are for settlement with power of D\_\_\_\_\_ collection. MR Renny / MR Blumhardt, MR Moran & a native / MR Bickilt is the Dt Commissioner in charge / of the whole work.