

ART. VI.—*Notes and Recollections on Tea Cultivation in Kumaon and Garhwál.* By J. H. BATTEN, F.R.G.S., Bengal Civil Service Retired, formerly Commissioner of Kumaon.¹

THE cultivation of Tea in Kumaon has become so important and profitable, that it is interesting to trace the early history of this industry; and the duty of placing on record as true an account as possible of its introduction, rise and progress, is one which ought not to be neglected by those who are acquainted with the real facts; yet, after all, there is not very much to be told, even by those in full possession of all the *data*, when they show that, in this case—belonging, as it does, in an especial manner, to the best interests of British India—the seed of the sower “fell upon good ground, and yielded fruit, some an hundred-fold, some sixty, some thirty.”

Its history, however, may be conveniently and naturally divided into periods, comprising the seasons, *first*, of ignorance and indifference; *secondly*, of guessing and conjecture; *thirdly*, of the first actual official experiment; *fourthly*, that of regular government exploitation; *fifthly*, of the commencement and progress of private enterprise; *sixthly*, of the abandonment of the official experiment; and *lastly*, of the commercially successful result. My own recollections more particularly belong to the first four periods.

With regard to the *first* period, I am not surprised that the Tea plant, as a source of future wealth to the British Himálayan provinces, did not enter into the anticipations of the early administrators of these districts, when I find even the climate, now their chief attraction, was treated with indifference. It is a fact that when Mr. G. W. Traill, then an Assistant under the Resident of Dehli, was first offered the appointment of Commissioner of Kumaon in succession

¹ The substance of this paper was read at the Meeting of the British Association at Plymouth, August, 1877.

to its first British ruler after its conquest in 1815, the Honourable Edward Gardner (afterwards our Resident in Nipál),—he hesitated as to its acceptance on the score of health, and bargained that he might have the option of returning to the plains of Hindostan in case the hills should prove unsuitable to his constitution. If I may not lay too strong a stress on this personal circumstance, I am undoubtedly entitled to notice the fact that, in his statistical sketch of Kumaon, published in vol. xvi. of the “Asiatic Researches,”¹ after nearly ten years’ experience of the Province, Mr. Traill, while alluding, generally, to the diversity of temperature and climate found at various degrees of elevation on the mountains, drew up for public information his tabular statement of the thermometrical range (as indicating a “moderate heat”) from observations made in the Valley of Hawalbagh at 3,887 feet above the sea. Almorah, at 5,400 feet, remained for many years the highest of the English Hill Stations,² and was quoted as the only Sanatorium by Bishop Heber in 1824; while Dehra in the Dún of that name in Garhwál, and Sabáthu in the north-western mountains [both of them situated in almost sub-tropical climates, owing to their low elevation], were the head-quarters of the Civil and Political Officers; these gentlemen had not as yet discerned the future sanatory and social importance of their own creations, viz. Major Young’s “*potatoe garden*” at Mussooree, and Capt. Kennedy’s “*hot-weather bungalow*” at Simla. Nor, while regretting the delay which has occurred in the introduction of the Tea plant into Kumaon, can I be accused of any unfair or captious display of what might perhaps be called “wisdom after the event” if I point to the following facts, viz. that Naini Tal, now the beautiful summer seat of the Government of the North-west Provinces, was only discovered and established as an European Station in 1843-44;

¹ *Vide* page 15, Official Reports on the Province of Kumaon (Agra, 1851).

² The remote frontier post of Kotgurbh, overhanging the Sutlej valley in the western hills, though well known as the residence of the two Gerrards, who were among the first to explore and describe the Himálayan regions, is certainly higher in elevation than Almorah and its outposts, but it could not properly be called an English Hill Station.

that Ránikhet, now a large European Military Cantonment, reached by a *carriage road* from the plains, was only known, until very recently, as forming part of the Choumoka Devi range, visited by Bishop Heber in December, 1824, and especially admired by him on account of its magnificent prospects of the Snowy Peaks; that the much-dreaded malarious Bhábar and Terai, at the foot of the Kumaon mountains, formed a real and actual barrier to all intercourse, except by letter post, from April to November, while they are now constantly traversed, in comparative safety, by European travellers, and afford a principal source of revenue to the Kumaon exchequer, under the able management of Sir Henry Ramsay, the present Commissioner; that the resort of English men, women and children to the mountains, formerly feared as somewhat of an invasion and visitation, has become a constantly increasing source of wealth and civilization to the "poor Pahárris"; and, lastly, that, at the present date, the price of borax from Hundes, in the Almorah Bazaar, has almost ceased to be mentioned as a trade speculation, while the price of Almorah Tea has become an important topic of conversation among the merchants of Kábul!

As these notes are specially devoted to the subject of Tea in Kumaon and Garhwál, I need not concern myself with the general *speculations* as to the growth of the Tea plant throughout the Himálayan districts, or elsewhere, which the valuable paper on Tea culture read before the Society of Arts, by Mr. A. Burrell, on February 2nd, 1877, has fairly exhausted. But I may be permitted to remark that, looking to botanical facts, which show no true *Thea* or *Camellia* growing wild in the mountains west of Sikkim, it is highly probable that the specimens of *Thea* sent from Nipál in 1816 to Dr. Wallich, then the Superintendent of the Botanical Garden at Calcutta, by the Hon. Edward Gardner, belonged to Chinese plants, flourishing in the residency or other gardens at Khatmandu—an introduction nowise extraordinary, considering the political relations existing between China and Nipál. I may also observe that the traveller

Moorcroft, whose deputation to Cashmir and Tibet took place in 1819, and whose special business was to look after horses and wool, when mentioning the "Tea of Bissahir" and comparing it with the "coarser Teas of China," fell into the mistake of supposing that the Tea plant grew naturally on the banks of the Sutlej.

Bishop Heber, who visited Almorah in December, 1824, and, as previously glanced at, on his return tour to the plains, passed the site of the present cantonment of *Ranikhet* by the route of the Riúni, Kúmbpúr and Chaumúka Dévi range,¹ wrote the following words in his journal: "The Tea plant grows wild all through Kumaon, but cannot be made use of, from an emetic quality which it possesses. This perhaps might be remedied by cultivation, but the experiment has never been tried. For the cultivation of Tea I should apprehend both the soil, hilly surface and climate of Kumaon, in all which it resembles the Tea provinces of China, extremely favourable."

This latter remark shows the observant eye, and prophetic wisdom of the good Bishop, and fully entitles him to an honourable place, perhaps the first, on the list of Tea pioneers of Kumaon, but the former statement was founded on a "vulgar error." It is now well known that the plant alluded to is a species of *Osyris*, belonging to the natural order Santalaceæ, and it is as well to record, in this place, that, in the *Transactions* of the Committee of Commerce and Agriculture of the Royal Asiatic Society of London for 1838, Dr. Royle states that "some specimens of the Tea Bishop Heber referred to had been obtained by the Hon. Mr. Shore, from Mr. Traill, then Commissioner in Kumaon, and were found to be the dried leaves of *Osyris Nepalensis*, and produced a very disagreeably tasted nauseous infusion when used as Tea."² The indigenous Tea, therefore, of Kumaon must,

¹ As bearing on my present subject, it is somewhat singular that the principal site, originally selected for this military station, was a Tea-garden belonging to the Troup family, the members of which have been, from the first, conspicuous private Tea-growers in Kumaon.

² The late Captain Edward Madden, Bengal Artillery, subsequently better known, under the name of Major Madden, as the author of numerous highly interesting botanical and other notes of his tours in the Himálayan districts, and

I fear, take its place, in spite of episcopal authority, among the rosemary and nettle and other *teas* of our rural English housewives. Before closing this subject, I may add that the nearest ally to Thea in Kumaon is a species of *Eurya*,¹ belonging to the same natural family, the "Ternströmiaceæ," but undoubtedly not the Tea-plant.

Amidst all these *guesses and conjectures*, the first real land which we descry in the history of Kumaon Tea is the appointment, on 24th January, 1834, of Lord William Bentinck's "Committee for the purpose of submitting a plan for the accomplishment of the introduction of Tea culture in India, and for the superintendence of its execution." This Committee circulated important queries, and, among the botanists and scientific men aroused by the inquiry, there happily appeared Dr. HUGH FALCONER, Civil Surgeon of Saháranpúr, in the North-West Provinces, then in charge of the Government Botanical Gardens at that station, and, eventually, the successor of Dr. Royle in that appointment. His ardent mind was at once aroused to the great importance of the subject as affecting the Himálayan districts which overhung the scene of his official labours.

more particularly in Kumaon, published in the Journal of the Bengal Asiatic Society, in the years 1847-48-49, writes thus in his "Brief Observations on some of the Pines and Coniferous Trees of the Himalaya," printed in vol. iv. of the Journal of the Agricultural and Horticultural Society of India at Calcutta (1845): "Dr. Royle mentions that in Kumaon Tea is made from the leaves of the shrub *Osyris Nepalensis*, and this is probably the Green Tea of Bisehur which Moorcroft (Travels, I. 35, 2) describes as being imported into Ladakh under the name of *Maun* or *Bisehur Tea*, the produce of an evergreen shrub, 4½ feet high, growing on a dry soil in Kooloo, and Bisehur on the banks of the Sotlej, and especially about Jhagul between Rampoor and Seran. The leaves are gathered from July to November, and after infusion in hot water are rubbed and dried in the sun. They sell at the rate of three seers per rupee and are not much in request. The first infusion is reddish and is reckoned heady; the second, which is used, is yellowish green. The *Osyris Nepalensis* grows to be a large shrub ten or twelve feet high in the Kotar Khud above Subathoo and between Kussowlee and Kalka, where it is called Krecoontee, Keoontee, and Kuneentee, and also Loonkt. The fruit is known by the name of Peopla or Peopra, also applied to that of *Murraya exotica*. The natives here use the leaves medicinally, but not, I believe, as Tea. The black Tea of Bisehur, Moorcroft describes as the produce of a deciduous shrub found near Ustrung and Leehhee in Kunaure; of which the leaves are pulled in July and August. Ustrung is very elevated, for a species of Rhubarb flourishes in the neighbourhood."

¹ In Major Madden's Kumaon Botany *Eurya acuminata* is mentioned more than once. In a recent work, "The Karens of the Golden Chersonese," by Lieut.-Col. A. R. McMahon, the Burmese species of *Eurya* is frequently mentioned as "wild tea."

The mantle of Royle had indeed fallen on worthy shoulders. If to that eminent naturalist at Saháranpúr and to Wallich at Calcutta, who were ever presenting reports and urging arguments in the proper quarter between 1827 and 1834, we owe that formation of the Tea Committee in the latter year I have just named as the era from which to count our Indian Tea chronology, it is to Falconer that the Kumaon and Garhwál Tea growers may undoubtedly look back as the founder of *their* history. I well remember, on arriving at Saháranpúr in January, 1835, my own delight at my first introduction to this eager and enthusiastic votary of science. At that time, of course, the treasures of the Sewálik fossil ground were for the first time displayed to my admiring eyes, and *Cautley*, *Durand* and *Baker*, officers belonging to the Jumna Canals, were joined with *Falconer* in the enlightened circle¹ belonging to that small, but interesting station, and its neighbour Dádúpúr; geology, however, was far from being the sole topic of animated discussion, and Falconer was full of his recent visit to the mountain country between the heads of the Jumna and Ganges, and of his hopes of permanently introducing the true Tea plant not only there and in the Dehra Dún, but, also, in the district between the Ganges and Gogra, forming the British Province of Kumaon. My own earliest lessons in Himálayan Botany and Geology were there taught me in Falconer's happiest manner, and the sight again of his MS. Journal, then shown to me, with which I have been recently favoured, brings my thoughts vividly back to those instructive days, and sadly reminds me that, in 1834, as in following times, and alas! to the very end, frequent attacks of illness cut short, or diminished the extent and usefulness of, his most important tours of scientific inquiry. Much of the ground traversed and described in that Journal of 1834 was gone over by me in 1835; and,

¹ The future world-wide distinction of this circle was not confined to Canal Officers and men of natural science; for, the late Commander-in-Chief in India, Lord Napier of Magdala, then a young Lieutenant, was Civil Executive Engineer at Saháranpúr. Dr. John Muir, the well-known Oriental scholar, soon after the period of which I am speaking, joined this circle as one of the Revenue functionaries of the district.

knowing the anxiety of my friend in the subject, I well recollect my disappointment in finding that, at one garden—Ráma Surai,¹ in the heart of the Tírhí Rajah's territory—the Tea seeds sown by the Saháranpúr gardener had not yet successfully germinated.

To return to the Tea Committee. The Report² received by that body in 1834, from Dr. Falconer, is acknowledged as having led them to adopt the Sub-Himálayan regions³ as entirely suitable for the projected culture; and so rapidly was this followed up by action, that their deputed secretary, Mr. Gordon, was able to send to them from China a large supply of seeds of the true Bohea tea, which, early in 1835, besides being despatched to Madras, Mysore, the Nilgherries, and Assam, were distributed, also, in foreign Garhwál (Tírhí), the Dehra Dún, Sirmúr, and Kumaon.

It was extremely fortunate for the cause of which I am treating that the Commissioner of Kumaon, in 1834, was Mr. George William Traill. This gentleman, as shown by his published statistical reports on Kumaon and the Bhote Mehals, and by his great reputation as a Local Administrator, was eminently qualified to appreciate the economical importance of the Tea question; and to give effect to any suggestions of the Tea Committee. It was also fortunate that he possessed on the spot an able coadjutor in Mr. Robert Blinkworth,⁴ who held, at Almorah, under Dr. Wallich, as he had previously held in Nipál, the appointment of Plant Collector for the Botanical Garden of Calcutta. On receiving the report of the Tea Committee, Mr. Traill at once understood the conditions under which the Chinese Tea plant would be most likely to flourish in his province; and he selected two most appropriate sites for sowing the Tea Committee's seeds. All subsequent experience has shown that, as a general rule, he was quite right in the grounds of his selections—climatic and

¹ Subsequently one of the most favourable, though small, sites of Tea, as reported by Dr. Jameson, in July, 1847.

² 22nd February, 1834.

³ That is, "the lower hills and valleys of the Himálayan range."

⁴ A name not unknown to the nomenclature of the Himálayan flora.

otherwise,—while any *extreme* departure from those grounds has been subsequently found to be unfavourable to the success of the Tea experiment. These sites he selected were Latchmeswar, near Almorah, and Bhartpúr, near Bhimtal, the former occupying three acres of old and easily acquired Crown garden¹ land on the north-west slope of the hill below the capital town, at 5,000 feet above the sea, the latter occupying four acres at 4,500 feet above the sea, in the near neighbourhood of the Bhimtal Lake, which is situated on the first step of the mountains above the Bhamauri Pass. To these two sites the Kumaon official experiment was confined during the six quiet years following the eventful period of 1834-35. The close of 1835 witnessed the departure to Europe of Mr. G. W. Traill,² the Commissioner to whom the province of Kumaon owes so much. “His name will live for ever among the posterities,” the descendants of those grateful Pahárries, in whose memory their earliest British ruler has been associated with the blessings of peace, kind dealing and good government (blessings unknown under the hard rule of the Goorkhas), if not with that increase of wealth and civilization, moral and material, which, with the advance of the times, has marked the administration of his successors.³

It is proper to confess that, at Latchmeswar and Bhartpúr, the growth of the Tea plants was left very much to Providence, and—Mr. Blinkworth; and that no very sanguine anticipations or anxious inspections disturbed the tranquillity of the Kumaon authorities with regard to tea. It was seen, as a matter of ocular evidence, that the plants flourished in those two nurseries; and, perhaps, the first favourable cir-

¹ Ráj-bárho.

² Mr. Traill was a member of the well-known Orkney family, and possessed landed property in those islands, but he preferred to lead a quiet life among old Indian friends in London, and died suddenly at the Oriental Club in November, 1847.

³ 1836 to 1838, Colonel G. E. Gowan, Bengal Artillery; 1839 to 1848, Mr. G. T. Lushington, B.C.S.; 1848 to 1855, Mr. J. H. Batten, B.C.S., formerly Assistant Commissioner; 1856 to 1877, the present Major-General the Honourable Sir Henry Ramsay, C.B., K.C.S.I., formerly Assistant Commissioner.

cumstance connected with them and their produce was, that many travellers through the Province had opportunities of observing the tall, flower-covered, and seed-laden tea trees growing in Mr. George Lushington's garden, at his beautiful country residence of Ritea Sen,¹ at Soniana, in Lohba, 50 miles to the north-west of Almorah, on the borders of Kumaon and Garhwál. Similarly, visitors to the Saháranpúr Botanical Garden were shown live tea tree plants, the offspring of seeds from the small patch of nursery ground at Koth, in foreign Garhwál.

At Paori, too, the official residence—it can hardly be called the “civil station”—of the Senior Assistant Commissioner in charge of the British portion of Garhwál, situated on the north side of the range overhanging the old capital Srinaggur—very fine tea plants were growing in considerable numbers. At length, in the spring of 1841, Dr. Falconer himself paid a visit to Kumaon, and the regular formation of the Kapína nursery at Almorah, which Mr. Blinkworth had selected, in the immediate vicinity of Latchmeswar, and, like that plantation, having its nucleus in an old Crown-plot of garden, was the first result of his personal inspection of the country. I well remember his hearty approval of the wisdom which had led Mr. Traill and Mr. Blinkworth to select the original tea sites; but it is right to state that Falconer, quite as much as his successor, Dr. W. Jameson, at first strongly desiderated tea sites in more flat, and more easily and plentifully irrigated and irrigatable land.

The extension of the official experiment to the rich slopes adjacent to Naukurchia Tal, the sister lake of Bhimtal, not far from the Bhartpúr plantation, followed in rapid course; and early in 1842 the Government was able to send to the Calcutta Agricultural and Horticultural Society the following cheering notices, supplied by Falconer, respecting the progress already made in the cultivation of the Tea plant in the Provinces of Kumaon and Garhwál.

“The first place in which the plant may be seen is Paori,

¹ Now a tea plantation belonging to Mr. J. Richards.

near Sreenuggur, at the elevation of about 6,000 feet,¹ where there are some hundred strong and healthy-looking plants and seedlings. The next place is in a garden at Lobah; here, at a height of about 5,000 feet, are about as many plants as at Paori, and all of the same healthy appearance. At Almorah there are two gardens belonging to Government; the first covers three acres, and contains 1,500 full-grown trees yielding seed, and 20,000 growing seedlings. The second stands on eleven and a half acres, and has 700 layers and 500 seedlings. The most eligible site nearest the plains is at Bheemtal, where there are two gardens; Bhartpoor, of three acres, contains 300 trees yielding seed, 700 layers, and 200 seedlings; the other, Russeah, on the Nowkoocha Lake, of six acres, has 5,846 thriving seedlings, and 20,000 seeds sown. In the vicinity of this last garden, in the semi-circular slope of the mountain to the north and east of the Nowkoocha Lake, a great extent of irrigatable land, proved to be favourable to the growth of the tea-plant, is to be had at the distance of only one march from the plains, and at an average elevation of about 4,000 feet. In the several gardens, not of too recent formation to have trees yielding seed, there are calculated to be not less than 50,000 seeds nearly ready to be gathered, and that nearly all of these will germinate may be concluded from the produce of what have last year been sown, and are now coming up. On the whole, the experiment, in as far as the possibility of rearing the tea-plant in the provinces of Gurhwal and Kumaon is in question, may be safely pronounced to have completely succeeded."

This quotation brings us naturally to the close of our period of *first official experiment*, and we now enter upon the period of *regular Government exploitation*²—and, at this point

¹ This elevation is not correct. The height of Paori itself is not quite 5,250 ft. The tea nurseries at Chopra and Gudolee, in its neighbourhood, were subsequently established at elevations extending from 5,000 to near 6,000 feet above the sea.

² Dr. Falconer, on 2nd May, 1836, forwarded to the Secretary of the Tea Committee, at Calcutta, a *very full* Report on the sites of the Five Experimental Tea Nurseries which he had established in Gurhwal (Protected State) and Sirmur

of time, the figure of Hugh Falconer begins to recede from our view. But before ill-health compelled him to leave Saháranpúr, in December, 1842, he had accomplished the main object which he had always in view, and proved the success of the experiment which had been initiated under his auspices, by the production of actual manufactured Himálayan Tea. He had concluded his Report on the state of affairs in Kumaon, at the close of 1841, by the following recommendation: "I beg, therefore, strongly to recommend this to the favourable consideration of Government, that two complete sets of Chinese Tea manufacturers be supplied for the nurseries at Kumaon and Garhwal, especial care being taken, in the selection, that these workmen be of the best description." In consequence of that application,¹ "The Indian Government determined upon sending him a small manufacturing establishment. The black and green tea manufacturers however, who were engaged for this purpose by the Commissioner of Assam, subsequently declined, together with their Superintendent, to proceed to Kumaon. Dr. Wallich was fortunately enabled to procure other men in Calcutta out of a party of Chinese artizans returned from Assam. A set of manufacturing implements were also procured from Assam. These were forwarded to Kumaon in charge of Mr. Milner, the gardener, who was on his way to the Botanic Garden at Saháranpúr. The Chinamen (nine in number) arrived at their destination² in April, 1842."

These men made some tea from the Kumaon plants in the autumn of that year, and Dr. Falconer, who had been detained in the South of Europe by ill-health, brought a specimen of the manufacture to England in June, 1843. As shown in Dr. Royle's report just quoted, it was submitted

(Protected State), and on the condition of the Tea seeds which he had received from Calcutta. I am especially indebted to Mr. Burrell for the use of Dr. Falconer's original Diary and other MSS., and of this first Tea Report, never published, which Mr. Burrell found in the Records of the India Office, and has permission to print.

¹ Vide Report on the Progress of the China Tea Plant in the Himálayas, from 1835 to 1847, by J. Forbes Royle, M.D., F.R.S., London, April, 1849. Journal of the Royal Asiatic Society, Vol. XII. Part I.

² Hawalbagh, near Almorah.

for examination to the eminent tea-brokers, Messrs. Ewart, MacCaughy, and Delafosse, and their report of 8th September, 1843, is thus worded :—"The tea brought by Dr. Falconer as a specimen of the growth of the China plant in the Himálayan Mountains resembles most nearly the description occasionally imported from China under the name of Oolong. This resemblance is observable in the appearance of the leaf before and after infusion. The colour of the liquor is also similar, being paler, and more of the straw colour than the general description of black tea. It is not so high flavoured as the fine Oolong tea with which we have compared it, and has been too highly burnt in the preparation; but it is of a delicate, fine flavour, and would command a ready sale here." I myself well remember the arrival of the Chinamen; and in my printed account of Almorah, in June, 1843, where I described the beauty of the scenery at Hawalbagh, and recorded the fact that Major Corbett's large estate at that place had been purchased by Government, with my hopes that, under the superintendence of Dr. Jameson, the *horticultural* garden would yield large supplies of fruit, such as apples, pears, and plums, of better quality than then existed, I added, "Thousands of Tea plants are thriving very well in the Almorah and Hawulbagh nurseries, and ten Chinese Tea-bakers amuse the puharree population by their strange figures, and still stranger propensities."¹

It is no disparagement of Falconer's merit that it was subsequently discovered that these first imported artizans were not all of the right sort from the best Tea districts of China, or that Dr. Jameson, who had relieved Falconer during the serious illness of the latter, had, as it would appear, also sent specimens of manufactured Tea to Calcutta and London, and received a favourable report thereon in September, 1843, from Messrs. Thomson, of Mincing Lane.

We now come to the great *central name* which will always most justly be associated with the immense success which has attended the progress of Tea culture in the mountain

¹ Among them their love of pork.

districts of India. WILLIAM JAMESON had not to make a name for himself. He came to India with all the *prestige* derived from the reputation in science of his celebrated uncle, and right nobly did he sustain and extend from Edinburgh and Europe to the Himálaya and Asia, the honours of his family.

Having assumed full management everywhere as Superintendent, Dr. Jameson paid his first visit to Kumaon, in April, 1843; and made his first official Report¹ on the Tea Nurseries of that Province, on the 28th February, 1844. From that date until the final abandonment of the Government exploitation, and the successful establishment of private enterprizes, the progress of the whole cultivation of the Tea plant, and of the production and disposal of the manufactured Tea, formed the subject of the most complete and exhaustive reports, furnished regularly by the Superintendent, and published at first in the "Transactions of the Calcutta Agricultural and Horticultural Society," and, after the introduction of the system of Annual Administration Reports by the several Governments of British India, in the official records of the N.W. Provinces. It is not necessary for me to transfer the statistical details thus furnished to the pages of these Notes and Recollections. I trust that they will be collected and embodied in one general history, either by Dr. Jameson himself, or by some other competent authority. But the following observations, founded on personal experience connected with the *earlier* reports, will not, I humbly think, be out of place.

With the exception of the garden at Hawalbágh, which, with its fine house and offices, were purchased by Government at a most convenient and critical period in the history of the experiment of which we are treating, and which became the head-quarters of Dr. Jameson in Kumaon, and the site of the principal factory—the new ground taken up for the first great extension of the Tea nurseries was not *all*

¹ Communicated by Government N.W. Provinces to the Agricultural and Horticultural Society, Calcutta, and published in their Journal, vol. ii. no. xii.

happily chosen. At that time, a *copious* supply of water for irrigation of the Tea plants was considered essential to their welfare, and Dr. Jameson, in his additions to the original plantations in the Bhimtál district, only carried out the selections and intentions of his predecessor. Russeah, Kooa Sar, and Anoo Sar, especially these last, as their names imply, were situated in essentially *valley* land. The natives of Kumaon divide all land into *ooperaon*, or high, and *tulaon*, or low, which last division also includes *seera*, or actually wet or irrigated soil; and the original recommendations of the Tea Committee certainly did *not* point to the latter. But these nurseries also had another defect. They for the most part occupied land which the villagers of the Chukháta district preferred to keep in their own occupation, and official pressure was undoubtedly used, before the landowners agreed to take what was considered a compensating rate of rent.

I, myself, at that time, filled a subordinate position, and, in handing over wheat and rice lands for the planting of Tea, only acted under the orders of superior authority. But nevertheless, in my civil executive capacity, my hands, as duly recorded by Dr. Jameson, dealt the fatal blow, and I do not now wish to deny my responsibility; but the whole thing was a mistake, and some time before I resigned the Commissionership to its present philanthropic incumbent, having been instant, in season and out of season, in personally representing to the head of the local Government the claims and wishes of the Zemindars, I had the great satisfaction of restoring them their lands, and receiving their thanks. On this matter Mr. Robert Fortune, the celebrated gardener-traveller, to whom English florists owe so much, in his first report on the condition and prospects of Tea cultivation in the North-West Provinces, dated September 6th, 1851, after objecting to the "low flat land" as unsuitable for Tea, remarked, "Besides, such lands are valuable for other purposes. They are excellent rice lands, and, as such, of considerable value to the natives." And in his second report, in 1856, he made the following observation:—"In my former report to Government, it was necessary to express an opinion on

some other plantations in this district, where the land which had been chosen was not suitable for Tea. Since that time these plantations have very properly been abandoned, and the land returned to the natives for the cultivation of rice and other crops, for which it is well adapted." I have no wish to revive the controversies raised by what may be called the "Fortune Episode" in the general history of Himálayan Tea; but in recounting my own experiences on the subject of Kumaon Tea in particular, it would have been almost dishonest to have maintained a complete silence on the *veraxa quæstio* of moist and dry sites, or to have omitted some mention of the only remarkable official mistake committed in the course of a Government exploitation which at last culminated in such brilliantly successful results.

Putting aside the point of controversy, which, after all, chiefly referred to a temporary state of the Kaolagir¹ plantation in Dehra Dún, the earlier deputation of Mr. Fortune to the Tea plantations—a most important and beneficial event in the history of Indian Tea, being made by one thoroughly acquainted with China—brought to proof quite as much as did his second, the very great *impetus* which had been given to the spread of the plant by the energetical efforts of Jameson.

After the lapse of twenty-six years I still remember with the liveliest pleasure the visit of Fortune to Kumaon in 1851, and the enjoyment and profit I received from his interesting and instructive conversations at Naini Tal and its vicinity; while, of course, it was additionally satisfactory, as I then filled the principal official post in the province, to find that he sympathized with my views as to the future sites of the Tea plants.²

¹ Formed by Dr. Jameson in 1844, and sold to the Rajah of Sirmúr (Náhn) in 1867.

² Among other remarks in his first report occurs the following:—"There is no such scarcity of Tea land (*i.e.* 'the hilly land, such as the Tea plant delights in') in these mountains, more particularly in Eastern Gurhwal and Kumaon. It abounds in the districts of Paoree, Kunour, Lohba, Almorah, Kuttoor, and Bheental; and I was informed by Mr. Batten that there are large tracts about Gungolee and various other places equally suitable. Much of this land is out of cultivation, while the cultivated portions yield on an average only two or three annas per acre of revenue."

I had been a little disappointed by the result of a visit paid by Dr. Jameson in the autumn of 1846 to my pet tract, Kutyoor, concerning which he reported in July, 1847 :—"I accompanied Mr. Commissioner Lushington to Byznath, being informed by him and Mr. Batten that in its neighbourhood a large tract of country well adapted to Tea cultivation was lying waste. Such, however, no doubt was the case prior to the last settlement; now all the irrigable land is covered with rich cultivation. I must, therefore, extend the plantations in the Chukhata district." It was with corresponding satisfaction that I found Mr. Fortune, in 1851, fully alive to the great importance of Kutyoor as a Tea district, and I cannot refrain from quoting at length his recorded opinions on the same subject :—"Kutoor is the name of a large district thirty or forty miles northward from Almorah, in the centre of which the old town or village of Byznath stands. It is a fine undulating country, consisting of wide valleys, gentle slopes and little hills, while the whole is intersected by numerous streams and surrounded by high mountains. The soil of this extensive district is most fertile, and is capable of producing large crops of rice on the low irrigable lands, and the dry grains and tea on the sides of the hills. From some cause, however, either the thinness of population or *the want of a remunerative crop*, large tracts of this fertile district have been allowed to go out of cultivation. Everywhere I observed ruinous and jungle-covered terraces, which told of the more extended cultivation of former years. Among some hills near the upper portion of this district, two small Tea plantations have been formed, under the patronage and superintendence of Captain Ramsay, Senior Assistant Commissioner. . . . I never saw, even in the most favoured districts of China, any plantations looking better than these."

In my own Settlement Report, written in 1846, and printed in the *Kumaon Official Reports*, published by the Government of the N. W. Provinces, Agra, 1851, I had stated as follows : "At one time, from the citadel of Runchoola above their capital Kuttoor, the ancient rulers of the hills must have

looked down and around on an almost unbroken picture of agricultural wealth, for, not only in the valleys, but up three-fourths of the mountain sides, now covered with enormous forests of pine, the well-built walls of fields remain in multitudinous array, terrace upon terrace, a monument of former industry and populousness, and only requiring the axe to prepare an immediate way for the plough. The valley of Byznath, being situated on the frontier of Kumaon with Gurhwal, and in the neighbourhood of Budhan Fort, was often, in all probability, the scene of border conflicts and military exactions, and, the desertion of villages having once commenced, the deterioration of climate, originating in the spread of rank vegetation, and the neglect of drainage, etc., may be supposed to have gone on from worse to worse, till finally the heat and moisture were left to perform all their natural ill-offices, unchecked by the industry of man. Viewing, however, the present slight improvement in a hopeful light, and remembering the less favourable situations in which nurseries are thriving, *I am of opinion that the district of Kuttoor (Byznath) would be found the one most deserving of selection for the future spread of the Kumaon Tea cultivation.* Irrigatable unoccupied lands, at between 3,000 and 5,000 feet above the sea, abound on the lower slopes of the hills, while much of the good land in actual possession is occupied by migratory tenants at will, unattached to the soil, in whose place the Pudhans of villages could have no reasonable objection to see profit-paying, wealth-planting *Gardeners.*"

In another place, after describing the desolation caused by tigers in the neighbouring Pergunnah of Gungolee, and after showing the small amount and precarious character of its revenue, and the facilities for obtaining waste lands, I added, "I have named this Pergunnah as one of those most favourable for the Tea-growing experiment. I do not fear the expulsion of well-armed, and, what is better, well-paid Mallees from their fenced nurseries by the combined efforts of all the *feræ naturæ* of Gungolee." I may, I trust, be permitted to look back with pride to these, and

other similar vaticinations with regard to Kumaon Tea, when, in 1877, I am able, in recording my recollections of my “antiquæ sedes,” to point to the long list of flourishing Tea Plantations in Kutyoor, and now, on the earliest possible occasion, publicly to thank those of the existing Kumaon Planters who have given or sent to me *their* thanks for having been the first to declare the suitability of the sites now occupied by their estates, and to prophesy their future wealth. But my chief triumph, as it is, also, the main cause of the existing prosperity, may be seen in the fact—one most kindly and hospitably brought before my own eyes in 1865, when I took leave of Kumaon during a final visit from my last Indian station, Agra,—that Dr. Jameson himself established¹ a principal nursery and factory at Ayar Toli, near Byznath, of more than 2,000 acres, which became the centre of the best and richest Tea district in Kumaon.

I cannot conclude this paper without adding to the names, which, in these notes, have been mentioned in connexion with the introduction and progress of Tea in Kumaon and Garhwál, the distinguished one of Sir John Strachey, the present Financial Minister of India, lately Lieut.-Governor of the N.W. Provinces, and, for more than ten years of his younger life, a most important member of the Kumaon Civil Commission. To him, I am bound to add, that the Hill Provinces owe an immense debt of gratitude. If Science owes to his well-known and able elder brothers, Colonel Henry Strachey, and General Richard Strachey, the pioneer development and elucidation of all that is most interesting in the geography and geology of the Himálayan regions, belonging to, or adjacent to, Kumaon,—with no less distinction will the words *Progress and Light* be always associated with the name of John Strachey, in the civil, moral, intellectual, sanitary, and material history of Kumaon and Garhwál.²

¹ Under orders of Lieut.-Governor N.W. Provinces, dated 31st July 1854.

² As bearing on my own particular subject, the “Notes on the Cultivation of Tea in Kumaon and Gurhwal,” written by J. Strachey, Esq., Senior Assistant Commissioner, Gurhwal, dated 30th May, 1854, and printed by the Government N.W. Provinces, among other papers of that year, at their Agra Press, may be referred to as a communication of the highest value. While deprecating any

As the very best commentary on what I have been stating, I append the list of private plantations in the Dehra Dún, which accompanied the admirable official memoir on that district in 1874 by Mr. G. R. C. Williams, Bengal Civil Service, and a similar list for Kumaon and Garhwál in 1877, which I have recently received from Almorah. Verily, the few seeds sown in those early diminutive plots in 1835, under the auspices of Traill and Falconer, have produced abundant fruit!

The very names of some of the gardens and of their proprietors are highly suggestive of that part of the history of Tea in the Hill Provinces, which has been omitted from this sketch, as not belonging to my own personal recollections, and as being likely to become the subject of future notice by competent authorities. Although the completion of the Government exploitation, the commencement and progress of private enterprise, the abandonment of the official experiments, and the several stages by which the present commercially successful result has been reached, have been left for description by others, I am not travelling beyond my own appointed record when, before closing this paper, I recur to the period which preceded the full working of his large factories at Hawalbágh, Bhímtál, Áyár Toli, Paori, and Kaolagir, by Dr. Jameson.

This period includes the decade of years from 1845 to 1855, during which the reins of government in the North-West Provinces were held by the hands of those highly distinguished and deeply lamented Lieutenant-Governors, the Honble. James Thomason and the Honble. John Russell Colvin, whose able Secretaries¹ happily still survive, and could testify to the anxious interest taken by their chiefs in Tea culture. That interest led to a great amount of personal inquiry, and of consultation with the local officers, and to

artificial forcing of tea cultivation, Mr. Strachey distinctly anticipated the fact of tea becoming a staple produce under the influence of *European* capital, and he urgently recommended the formation of good lines of road communication throughout the Hill Provinces.

¹ Mr. John Thornton, B.C.S. Retired, and Sir William Muir, K.C.S.I., late Lieut.-Governor N.W.P., and, now, on the Council for India.

much official correspondence, all which had reference and pointed to, the future popular establishment of the new industry, after the exploiting work of the State should have been accomplished. In those days, the increased prosperity of the Hill people as earners of wages was clearly prophesied, together with the creation in a new field of a staple produce, calculated to benefit our own countrymen, who might embark their capital in the tea-growing enterprise. But, undoubtedly, there was also mixed up with the discussions which then took place, a somewhat vague notion that the Pahárrí agriculturists would themselves engage in tea planting, and (to use a phrase which I find in one of my own Settlement reports) that the "jealous occupants of rice and wheat fields would become humble applicants for tea seeds." Under this notion, various plans were proposed, and in some few cases adopted, for the introduction of the plant into villages, such as the free or conditional distribution of seeds, the granting advances (*tuccávee*) to intending tea planters among the Zemindars, the promise to buy tea-leaves brought in by the peasants to the several factories, the establishment of petty tea farms under native managers, with assistance from Government in the way of small local manufactories for the skilful preparation of tea, and similar measures of encouragement; while, equally to Natives as to Europeans, the promise was held out that, at any re-settlement of revenue liabilities, no higher rate of assessment should be levied on tea lands than the average rate usual for lands yielding the best ordinary products; and last, not least, that good roads to markets should be opened. The lists of existing planters show that the anticipations of that period have not been fulfilled with regard to the Native agriculturists, who have for the most part been content to supply in their own persons the well-paid and carefully supervised labour which has been, on experience, found to be necessary for the successful cultivation of tea by their European employers. Again, the records of the period to which I am referring show that, during the re-action occurring in favour of taking up for tea every available waste site, which

succeeded the time of selecting for that purpose only a few supposed appropriate localities, there were vast over-estimates put forward of the extent of territory suitable for the introduction of the plant; and the zeal, even of the prudent and wise Director of the Tea experiment, Dr. Jameson, led him into language on this point which, doubtless, he would himself now allow to have been far too sanguine. On reverting to the correspondence of the year 1852, I find that, notwithstanding Mr. Fortune's and my own statement on the subject of land available for tea (which have been previously quoted in this paper), I myself (fortunately for my reputation at the present time) informed the Government¹ that if 50 ready terraced waste sites in Garhwál, and 150 similar sites in Kumaon, *at absolute disposal of the State*, could be found fit for survey, and for offer to tea speculators, that quantity would be as much as might fairly be expected. I am now credibly informed that my estimate was too high, and that unless a change of system should occur, and unless uncleared mountain slopes, covered with oaks and pines, should be thought suitable for the planting of future nurseries, instead of, as now, being only used for the supply of fuel and timber, the Kumaon and Garhwál tea growers must give up the idea of occupying old abandoned sites, and must purchase from the Hill Zemindars whatever land they may require, *within the area of existing occupied villages*.

Whether this state of affairs is matter for congratulation or for regret, is a topic on which I cannot now enter; though, however anxious I may be for the spread of tea cultivation, I, as a philanthropist, am inclined to rejoice in the absence of "waste villages." But this sketch would have been manifestly incomplete if I had introduced, at its close, a statistical proof of the existing prosperity of the Tea industry, without some allusion to the early period, within my own memory, of preparation and hope which preceded it.

¹ Letter of Commissioner of Kumaon to Secretary of Government N.W.P., 10 Feb. 1852.

LIST OF PLANTATIONS IN KUMAON AND GARHWAL, 1877.

FURNISHED BY H. G. BATTEN, ESQ., EXTRA ASSISTANT COMMISSIONER.

Alphabetical Names of Concerns.	Name of Gardens.	Proprietors.
1. Berenág (In Pergunnah Gungolee, Puttee Buraon)	Berenág Purana Thul, Peerpulta	W. J. Galway S. Carrington and J. Isaac
2. Cheerapancee (In Pergunnah Kalee Kumaon, Puttee Tulla Charal)	Cheerapancee	Major C. A. de Kantzow
3. Chowkooree (In Pergunnah Gungolee, Puttee Buraon)	Chowkooree Chinnatee	J. G. Bellairs
4. Doonagiree (In Pergunnah Palee, Puttee Mulla Dwara)	Doonagiree	Craw and Co.
5. Dr. Oldham's Tea Gardens (No. 1, at Hawulbagh old Cantonment, near Almorah No. 2, in Pergunnah Chukhâta, near the Bheemtal Lake, and all the remainder in the great Tea District of Kutyoore to the North of Almorah)	1. Hawulbagh Lines 2. Bheemtal 3. Nowghur 4. Lucknee 5. Burgwar 6. Mulla Dhoba 7. Tulla Dhoba 8. Downee 9. Nurguaree 10. Pitlakote 11. Whendra	T. Oldham, Esq., LL.D., F.R.S., F.G.S., etc.
6. Dumlote (In Pergunnah Kutyoore)	Dumlote	R. M. Dalzell
7. Fernhill (In Pergunnah Kalee Kumaon, Puttee Bisong)	Fernhill	Col. J. J. Dansey
8. Government Tea Gardens	(1. Ayar Tolee 2. Hawulbagh	1. Messrs. C. & N. Troup 2. Mottee Ram Sah
9. Gwaldum (In Pergunnah Budhân, Zillah Gurhwal)	1. Gwaldum 2. Cheringa	T. A. Warrand
10. Jhultola and Sunoodhiar (No. 1 in Puttee Buraon No. 2 in Puttee Kumsyar, Pergunnah Gungolee)	1. Jhultola 2. Sunoodhiar	Moonshee Etmâm Ali
11. Kousanie Tea Co. Limited (in Pergunnah Kutyoore)	Kousanie	Kousanie Tea Co.
12. Kumaon and Kutyoore Tea Co. (In Pergunnah Kutyoore)	1. Wagoola 2. Megree, etc.	C. J. R. Troup Sir R. J. Meade, K.C.S.I. Major D. N. Murray Col. W. H. Hawes Col. H. J. Hawes Col. J. P. Waterman Capt. G. W. Cockburn Major C. H. Hinchcliff N. F. J. Troup Col. A. S. Smith Capt. G. S. Tait

LIST OF PLANTATIONS IN KUMAON AND GARHWÁL (*continued*).

Alphabetical Names of Concerns.	Name of Gardens.	Proprietors.
13. Lockington) ... (In Pergunnah Kut- yoor)	1. Chuttyeo ... 2. Bronga ... 3. Ayar Tolee ... 4. Dishholee...	} N. F. J. Troup C. J. Ackland (lessee)
14. Lodh ... (In Pergunnah Bara- mundul, Puttee Bo- rake Rao)	Lodh ...	
15. Lohoghat ... (In Pergunnah Kalee Kumaon, Puttee Bi- song)	Lohoghat ...	Mrs. Richards
16. Moosetee .. (In Pergunnah Chand- poor, Puttee Chupra- kot, Zillah Gurhwal)	Moosetee ...	J. Henry
17. Newton Dale ... (In Pergunnah Kalee Kumaon, Puttee Chárál)	Newton Dale ...	J. Newton
18. Nowghur ... (In Kutyoor)	Nowghur ...	Dr. Oldham
19. Paoree ... (In Pergunnah Barah Syoon, Puttee Nan- dul Syoon, Zillah Gurhwal)	Paoree ...	J. Henry
20. Ramgurbh and Jhulna (1. In Pergunnah Ram- gurbh, Kumaon. 2. In Pergunnah Bara- mundul, Puttee Oo- choor)	1. Ramgurbh ... 2. Jhulna ...	F. J. Wheeler Captain R. Wheeler
21. Ryekote ... (In Pergunnah Kalee Kumaon, Puttee Chárál)	Ryekote ...	W. J. Lyall
22. Silkote ... (In Puttee Lohba, Zillah Gurhwal)	Silkote ...	Mrs. Cumberland
23. Sitolee ... (In the suburbs of Almorah)	Sitolee ...	Capt. T. N. Harward and brother
24. Tilwaree ... (In Pergunnah Budhán, Zillah Gurhwal)	Tilwaree ...	H. M. Shepherd
25. Willow Bank .. (In Puttee Lohba, Zillah Gurhwal)	Willow Bank ...	J. Richards

Mem.—Yield of Kumaon Tea, 1876 : 578,000 lbs. (350,000 lbs. sold in India to Central Asian merchants). Estimated yield, 1877 : 690,000 lbs.

APPENDIX XV. TO MR. G. R. C. WILLIAMS' HISTORICAL AND STATISTICAL MEMOIR OF DEHRA DOON, 1874.
LIST OF TEA PLANTATIONS IN 1871.¹

NAME OF PLANTATION.	NAME OF OWNER, etc.	Estimated area under cultivation in acres.		Estimated annual out-turn in lbs.	Estimated value of annual out-turn.	REMARKS.
		Acres.	Roods.			
Arcadia Hurbunswála	Dehra Doon Tea Co. Limited Manager, Mr. Minto	220	0	50,000	70,000	This calculation is for 1871. Manager says that allowing the possible out-turn to be 150,000 lbs., and making deduction for loss, he considers 125,000 lbs. only as the amount which would actually reach the market. He has also made allowance for the fact that the class of tea made by him (green) has fallen 3 annas and 4 annas a lb. since February.
		330	0	80,000		
Ann Field Tea Company Bunjárawála	Manager, Mr. Watson Mrs. Knyvett	300	0	50,000	37,500	This calculation is for 1870. The concern being a private one, and badly managed, like all of the same sort on the Doon, it is hard to obtain exact statistics, but those given are pretty correct.
		100	0	5,264	2,632	
Luckunwála	Ditto	50	0	1,048	655	Same remarks apply here also. Moreover, this was a jungle in 1869, and not more than 400 lbs. of tea have been sold as yet.
Kowlaghír... ..	The Náhun Rájá Manager, Mr. Mooney	250	0	54,026	27,013	The out-turn in 1869 was 4000 lbs.; in 1870, 5000 lbs. That given is the estimated out-turn for the current year. The value of the 1869 out-turn was 2,200 rupees, which in 1870 increased to 3,300 rupees. Mrs. Vansittart considers that this may possibly rise to 4,000 rupees in 1871.
Goodrich	Mrs. Vansittart... ..	80	0	6,200	3,900	

ERRATUM.

Professor HAUG was *not* an Honorary Member of this Society.