

Third Fasciculus of Journal  
from Joalamookhee to Lahor  
the Capital of the Sikh Dominions  
from March 28th  
to May 13th--1820  
[signed] William Moorcroft

Transcribed by Janet Rizvi and Dan Jantzen, October 2020

*[This is a curious volume. There is a more than usual number of passages, either commenting on some local feature, or relating some historical event, or describing case-histories of his medical practice along the way, which have had a line drawn through them, presumably by the original editor of the papers, H.H. Wilson. Little or no trace of these passages remains in Wilson's published edition of the travels.]*

*The other unusual feature of the volume is that the pages following the abrupt end of Moorcroft's text are taken up with a note on Elephantiasis in a different (and much more legible) hand. This note is upside down to Moorcroft's text, and occupies pp.112 to 105, skipping then to its end on p. 84, which is followed by a half-page commentary by Moorcroft. Moorcroft's journal text skips without a break from p. 104 to 113. Moorcroft's text ends on p. 116 in mid-sentence, on 13 May 1820, and the following volume, the Fourth Fasciculus, starts on 15 May. Thus there is no record of Moorcroft's activities on 14 May, nor any explanation of why he broke off so abruptly.*

\*

*As usual, we can't guarantee completely accurate transcription of the numerous personal and place-names, as well as a few Indian terms, unfamiliar to us. We have on due consideration inserted commas or other punctuation in square brackets, where needed to make sense of some of Moorcroft's particularly convoluted sentences.*

*Transcribers]*

1

From Joalamookhee to Nadoun -- (NB 5 Kos)

March 28th -- I have prepared a sufficient quantity of Salt to admit of some being sent to the Secretary of the Medical Board for trial and of some being dispensed by myself. Should it really prove efficacious it will be desirable to have it largely prepared and sent to every part of Hindoostan as an article of commerce. If its merits be once established its analysis will speedily be conveyed to those parts of Europe in which the Bronchiali prevails. But here some precautions must be taken to prevent adulteration, to keep down its price and to insure its diffusion. Perhaps it would be best to make it an object of income to the Raja, to place the preparation in the hands of some European and to cause its authenticity to be asserted either by the Raja's Seal or that of the principal Priest of the Temple which would give it superior value and facilitate its use amongst Hindoos. On these points I will speak to the Raja on my return from Lahor. And I will also submit to him the propriety of

adopting means to keep the vicinity of the Springs free from filth of every description. It may also be gratifying to suggest a mode of assembling the inflammable gas in a Reservoir where it may issue by a suitable apparatus through the edges of the flower of the Lotus or through the leaves of the sacred Toolsee made in Silver.

I may be considered by some as promoting the contrivance of superstition instead of tearing down the veil which masks the

[2]

operation of a natural cause. On this head I satisfy my own conscience by the persuasion that the religion or devotion of the Hindoo however obscured by mystic symbols or by circumstantial ceremonies is directed to the "great first cause best understood Jehovah, Jove, or "Lord". Gratitude at least is due from me to that tolerant principle which has forbore all resentment whilst I have pushed enquiry so far as would have perhaps have shewn me the road to martyrdom had it been conducted with equal freedom or indiscretion in some of the more polished countries of Europe possessing a more enlightened faith. The procuring Caldrons from Confectioners gave rise to a repute that I was so firmly persuaded of the divine origin of the flame as to be induced to have Sweetmeats prepared for the purpose of treating the Brahmins. And either with the hope of this expectation being realized or to instruct me in the History of the discovery of the fire and the consequent annals of Joalamookhee as was desired and expressed by me a considerable number of Brahmans attended at my Trial.

If they did really expect a feast they bore the disappointment without a murmur on being told that I was preparing a medicine from the water and I must set up a claim to patience in listening to dialogues between the Raja and Manakunda a learned Brahman handed down from great antiquity but which contained no accounts that satisfied my enquiries. The salt water used

3

both internally and externally is reported to be particularly useful in cutaneous diseases but it was odd enough that this attribute was accorded only by strangers whilst the inhabitants of the town were in equal ignorance as in respect of this virtue as I seldom have seen people more troubled with itch and ringworms. The situation of Joalamookhee is elevated and pretty it commands a view of the whole valley of Babar and the Mountains of Jaswal and Chumgru with that of the Beas flowing down the former. The valley extends from Nadoun on the East to the Mountains of Hureepoor Gooler in the West a distance of little more than 12 Kos and it is only about 5 Kos in breadth. Wheat being its principal produce but the yield will be small this season through want of rain and but a small part of its arable surface admits of being irrigated whilst a very large proportion remains in underwood Jungul.

The whole of the Country of Kotoch belonging to the Raja Sansar Chund would seem to be naturally well suited to raise Silk from the great abundance of Mulberry Trees of both black and white kinds, round and long, with and without seeds, but there is not a single Silk worm in any part of the Tract. The Raja might

procure Eggs from Bengal Persia or Bokhara but most easily from the latter by the way of Kabool and at an expense particularly light in comparison with the object. But it may be doubted whether the increase of the productiveness of his territory might not precipitate

[4]

the fall of the ruler who only holds his power as long as it shall please Raja Runjeet Singh.

The Histories of the Sikh and of the Kotoch Chiefs would form a striking contrast of good and its fortune or perhaps of the effects of good and ill management as connected with persistence and foresight in regard to the power of the two individuals respectively, for the events which may follow the death of the former may perhaps reduce the patrimony of his successor even below that which the present Maharaja originally possessed through the inadequacy of his lineal successor, the ambition and activity of his Sister and through that struggle to regain lost territory and the reference to arms and to an aid which ultimately must become paramount. Sunsar Chand formerly possessed an income of thirty five Lakhs of Rupees. He is now reduced to eight arising from the possessions of Kotoch, Chunger and Pullurer. The latter is the most western and northern bordering on Chumba and its principal produce is excellent rice. A Valley of 35 Kos in circumference is embosomed in a belt of high Mountains in a manner almost similar to Koomlee Gurh and till lately when it was assailed by the Goorkhas thought not much more easily accessible. This extent is watered by three large rivers\* which at the height of the dry season are seldom lower than waist deep and the revenue of this District forms the principal support of the power of the present Raja which has declined almost as rapidly as

[fn.]\*the Ban Gunga, the Koorlee and the Misgul[?] which all rise on the Chumba range the former separating Kangra from Pullum, the 2nd running through its centre, the third more to the East descends on Pullam from Raj Desae. These three Rivers unite in Humeepoor Gooba[?] under the name of Tirgudha & fall into the Beas at Seeba Fort. [x]

5

that of his rival and lord has increased[,] and perhaps mainly from one mistake in his politics. When the Goorkhas first invaded the territories of Sunsar Chund the Raja was rich in a numerous and well affected yeomanry and in a veteran and well affected army accustomed to conquer when led by their Chief whose military talents were respectable and whose courage was unquestioned. Perhaps through apprehension of the Murhuthas, who led by Perron and other French adventurers had advanced in the Hills as far as Pinjor, he had contracted an acquaintance with Gholam Muhammoed the Chief of Rampoor. His fears were not ill founded for if their ambitious projects had not been arrested by the British forces five years more would probably have seen them in full possession of the Punjab and Kashmeer[;] and perhaps some of the most needy[?] with the resources of the latter country at their disposal might have aspired to the acquisition of that tract which lies between the northern part of the Kashmeerian Mountains and the southern face of the

artificial barrier of China Proper. And whether this would have satisfied their wishes and exertions backed as they would have been by a country easily drawn into activity by the prospect of plundering a most wealthy country it would be idle to speculate. Indeed in the opinions of those who have not considered the local and political circumstances of the countries in question I may long ago have exceeded the bounds of probability.

[6]

Whilst relying upon the strength and patriotism of his Troops and of his Peasantry Sunsar Chand successfully repelled the invasion of the Goorkhas under their best leaders and triumphantly drove them beyond the Sutlej where he concluded a treaty with them of which the principal condition was that he would not interfere with them provided they passed not the Sutlej. Whether he was led to neglect the interest of the eastern Rajas by selfish motives or influenced by the facility with which some of them joined the Standard of the victorious Nepalees in their attempt on the territories of the Kotoch Raja my informant is not apprised. But from the following fact it may be inferred that a sordid economy had its weight in his determinations.

The Rohilla Gholam Muhummood the Assassin of his brother the Nawab of Rampoor had acquired a military reputation with the Native Powers from his having been upon the point of gaining a victory over the British Indian Army near the Donjoura through the mistake or temporary derangement of mind of a British Officer which after great loss was retrieved by the presence of mind and gallantry of another.

At the present day few persons examining the circumstances would be disposed to assign any other cause than one of those recited[?] to the unfortunate Officer or the temporary success of the Puethans notwithstanding their gallantry to any other than the mistake itself. But the mistake was little known by the natives and the renown and prowess of the Rampooreans

7

was overrated. The transition to confidence in the arms and councils of Gholam Moohummed notwithstanding the direct result was natural and easy and Raja Sansar Chund was the first and principal victim of this ill founded reliance.

At the time of the last invasion of Hindoostan by Ahmed Shah Dooranee Gomund Chund the Grandfather of Sunsar Chund was Fouzdar of the Doaba between the Sutlej and the Beas called Bist Julunder. And in his retreat the Afghan gave to the Fouzdar the Doaba in perpetuity including the Royal Fort of Kangra. To secure these important possessions Gomund Chund now Raja procured some of the best Troops of the Empire in the last days of the Emperor Alumgeer Thanee retaining amongst others

Of

Koorje Syyeeds as Khasbundee or Troops of the Household	500
Poorbees or the Troops of the East selected for the defence of Kangra	300
Afghan Rohillas	400

Khatuks	50
Duknees	500
Puttee Rajpoots Horsemen	50
Kusoor Puethans Horsemen	50
Samba	100
Rajpoots Zundaharees	400
His own relations and Retainers[?] on his own Horses	<u>900</u>
	3250

with more selected for their bravery amounting to 4000 effective men the private foot soldiers receiving the pay

[8]

of 5 and the Horseman that of 20 Rs. a month.

Tegh Chund the Son and Successor of Gomund Chund increased his Army by calling in the Sons and other relatives of his fathers old Troops who had settled in his Country. He increased the pay of the foot soldier to 5½ and 6½ and of the horseman to 25 Rs a month.

Many of the soldiers were in the third generation of service when Sunsar Chund ascended the Raj and he confirmed the arrangement of his predecessors and also increased his Army. In an evil hour [how]ever he listened to the advice of Nuwab Gholam Muhummud Khan who represented that his Army was unnecessarily expensive and engaged to provide him with excellent Troops of Rampoor at the rate of 4 Rs. per month for a footman and of 12 Rs. for each Horseman.

The Raja regardless of the practice of his Ancestors as well as his own, forgetful of the recent valor of his Troops, relying on the faith of the Goorkhas and the sagacity of his new Ally dismissed his faithful servants who had become incorporated with his own subjects. Four months had scarcely elapsed from the completion of this measure before the Goorkhas hearing that Raja Sunsar Chund was without an Army had pushed on their Troops with such celerity and silence as to have crossed the Sutlej before the tardy levies of Rampoor were in motion. Fearing however to come in contact with the armed

9

Peasantry of Sunsar Chund until they were joined by the Rajas of Kueloor, Munde and others who feared their neighbor more than their invaders now become apparently their friend[,] the Goorkhas halted on the northeastern face of the heights of Anoo whilst the opposite face was occupied by the Troops of Sunsar Chund commanded by the Raja waiting accession of strength also in the arrival of his Puethan allies. The Newab was expeditious and brought a hastily armed Mass of new men to meet which when they had halted within a few miles for the night the Goorkhas silently quitted a stockade they had thrown up marched in silence during the darkness and reached the Puethan Camp at midnight. The Nuwab was encamped at a considerable distance from the rear of his Army perhaps to avoid the noise was asleep and no one chose to awake him. On the Goorkhas attempting to

force the Advanced Camp the Puethan Officers gave orders to fire upon the assailants who retired with precipitancy as if defeated and drew on the impetuous Peuthanis to the front of their own stockade into which retiring they commenced a most destructive fire on the Rohillas.

The Nuwab on learning the news of the night mounted his Horse hastened to the field, ordered a temporary

[10]

retreat reproached his Officers for acting without orders and notwithstanding his loss made himself so secure of victory as to desire Sunsar Chand not to advance from Nadoun on which place he had fallen back a few hours before the Nuwabs approach had been announced until he should hear from him. The Nuwab and his Rohillas gallantly stormed the Stockade but eventually and after a severe repulse were attacked by the Goorkhas who had scarcely suffered any loss and were completely defeated and dispersed.

Sunsar Chund too weak to resist his enemy in the field flushed with victory and strengthened by succours from the Hill Rajas threw Garrisons into his Forts and retired himself to that of Koth Kangra. Unable to raise Troops capable of driving the enemy from his territory although he expended much more treasure in raising new levies than would have sufficed for maintaining his old Army he was compelled to act merely on the defensive whilst the Goorkhas kept the field and received daily accession of strength by men and contributions. Pressed incessantly for several years by the Goorkhas, his Treasure and his Granaries exhausted, the revenue of his country in the hands of his invaders, his Peasantry dispirited through continued oppression and the want of an able leader the Raja at length became so seriously distressed for food in his Garrisons as to find no better resource than to call in the aid of his former Enemy the Sikh Chief and deliver into

11

his hands the Fortress of Koth Kangra which he was unable through famine longer to retain. The Sikh promised to drive off the invader and fulfilled his engagement but converted the Raja into a feudal dependent ordering him to attend his court at Lahor whenever he pleased. At first he kept up a shew of respect for his fallen fortunes and permitted him to be attended to his presence by fifty of his friends well armed,, but latterly he has directed Sunsar Chund to appear with only three attendants and unarmed. The preservation of his country from one enemy gained at the cost of a Fortress nearly impregnable except by famine and by a loss of two thirds of his treasure has been dearly purchased as the remaining third now lies at the mercy of Runjeet Singh. Sunsar Chund is now most desirous of becoming feudatory to the British Power and once was very near accomplishing that which he then considered less necessary to his existence as a Chief than he has since found it. In the war with Holkar Sunsar Chund afforded assistance in men and supplies to Lord Lake who was ready to reward him by extending to him the protection of the Hon' Company. But the Nuwab Ghulam Muhummood Khan the murderer of his brother and Bumboo Khan the brother of Gholam Kadr Khan the destroyer of the sight of his King had taken refuge in the territory of Sunsar Chund and Lord Lake

had received information that these two Chiefs when strong enough had resolved to join Meer Khan in predatory attacks on the territory of the Hon Company.

[12]

His Lordship conditioned for the expulsion of these obnoxious and dangerous characters from the Raja's territories but the Raja's honor could not submit to the arrangement. Some great and unlooked for reverses in the affairs of the Sikhs through defeat, intestine commotions, or the sudden death of the Raja Runjeet Singh can alone preserve according to appearances the power of Raja Sunsar Chund from being speedily merged in the Sikh Empire. His Son is principally engaged in his devotional observances and were the Raja to send his Grandson out of his territory for education suited to his rank, his absence would probably be the signal for a Sikh invasion.

29th March. Joalamookhee. 30th March Return to Nadoun. This town was formerly a place of great resort constituting as well the chief Mart of a rich Province as being a favorite resting place for Merchants trading betwixt Kashmeer and Hindoostan. It was proverbial for its conveniences and its allurements "Jaega Nadoun, to aega koun?" The duties on merchandize which passed through it were farmed at the annual sum of 27,000 Rs and those now collected in the whole of the territory of Raja Sunsar Chund scarcely exceed a fourth of this amount in a year. The principal article was Shawl Goods which to avoid the danger of being plundered on the lower road were brought from Kashmeer through Kistwar, Budurwa, Bunjail[?], Bisoulee, Noorpur, Hureepoor, Joalamookhee, Nadoun, Kuslan, Bainhthookraee or Hundoor,

13

Nahn, Dera to Nujeeabad [sic] or Saharunpoor. But the heavy duties exacted on this route by the different Rajas through whose countries it ran did not prevent the Chiefs from directly or indirectly encouraging plunder[,] and the robbery of a Caravan to the amount of three Lakhs of Rupees by a Raja whose necessities drove him to this desperate measure has destroyed the confidence of the Merchants in this road.

The principal Carriers were Gosheins who resided at Joalamookhee and had a capital consisting of seven hundred shares divided amongst Merchants and their Pupils. These people carried on a most extensive commerce to every part of India in the most expensive articles as Shawls from Kashmeer Brocades from Benares and the finest cotton white cloths of Hooshiarpoor and Rahowa[?], Chintzes of Mooltan, Muslins of Dacca which they disposed of at Poonah, Hydrabad, Bombay Calcutta Madras bringing back Specie, Pearls, Coral, Masuliputam Chintzes and other matters suited the West of India which were taken off their hands by Kashmeeree and other Traders or sometimes sent by their Chelas or Pupils to the Marts in which they were in demand. According to certain arrangements some of them always remained at Joalamookhee a time sufficient to refresh themselves after their fatigues and to prepare for new Journeys.

They hired armed men to aid in the defence of their property on dangerous routes

[14]

and they were themselves as well provided with arms as with courage resolution and strength the principal part of the travellers consisting of men in the flower of age, the older remaining at one or other of their Depots to receive reports, provide goods, prepare arrangements make out accounts and in a word to conduct with their judgment and experience the transactions to a successful and highly profitable issue Not more than two or three of the older Gosheins accompanied small detachments, the greater proportion of the guards consisting of the younger members of the community. Bound to respect their Elders as well by interest as by regard inspired from an early age and confirmed by religious motives, governed in their commercial actions by notions of honor peculiar perhaps to themselves but suggesting the most correct observance of honesty towards the common weal of the fraternity and influenced in their habits of personal economy by the strictest frugality no constitution of individuals could be better adapted to conduct itinerant commerce as mere sellers and buyers to profit than this religious community. But causes into which I have more accurately to enquire have gradually diminished their profits and their community. They informed me that the destruction of the wealth of the Hill Rajas was one of the many circumstances which had shorn their commerce of its allurements and many of them professed a preference to remain in religious quiet and

15

enjoy the incomes deriving from the lands which the piety of former Rajas had attached to their numerous mansions in the neighborhood of Joalamookhee. To me several of them behaved with the most marked civility desiring me to consider their house as my own and providing wood, grass &c in rivalry with the Servant of the Raja. The elevated and well shaded Chabootree of Elieechee Gur furnished a pleasant site for my Tent during my stay of two days and the principal of the house in his absence enquired several times a day if we were in want of any thing. It is most highly gratifying to observe even wherever Europeans have never set a foot the respect paid to the British character resulting from the justice and power of the British Indian Government. The Goshains now conduct their commerce principally by the road of the plains and the Rajas have to thank their own misconduct for a great defalcation in their revenue. Nadoun has been peculiarly unfortunate as for some years the Goorkhas had always parties of soldiers and these formed almost its only inhabitants as the natives influenced by attachment to their Raja as well as by the tyrannic rule of the invader quitted the Country. Since they have been expelled there is a small return of population and some of the shops are again occupied by confectioners, grainsellers, dyers and calico printers, but as I passed through the town in the middle of the day I

[16]

remarked that one third of the shopkeepers were asleep, another third playing at Parcheesee and the rest but listlessly employed.

The Bazar formerly crowded so as to render it difficult for a stranger to press through its narrow and ill paved avenues is now deserted except by Fuqeers,



Pilgrims and a few Moosulman individuals many of good families but reduced almost to mendicancy[?].

The vicinity of Nadoun abounds with Mulberry Trees of all the varieties with which I am acquainted, finger shaped and round, black and white, with seeds and without them and all in the highest health and luxuriance.

With abundance of food in a mild and dry climate it is presumable that the Silkworm would flourish and that the inhabitants would be pleased with an occupation profitable and not laborious and in which old persons and children might be employed. The order of the Raja would suffice to induce both Moosoolmans and Hindoos to undertake the pursuit with activity and Nadoun might form a central spot whence the business might extend through the Districts of Nadoun and Betwar. But the increase of prosperity might tempt the cupidity of the Sikh Chief and however melancholy it is no less probable that the poverty of the Country is at present the best security Sansar Chund possesses against it being wrested from him. That he would give permission to an European to reside and to attempt the experiment I cannot doubt but

17

I see no security for the permanency of the occupation or for the safety of the Capital the moment the Sikh Raja should learn that the British Gov<sup>t</sup> left the speculation to its own merits. This is to be regretted as this pursuit would afford an opportunity to retrieve their fortunes from the mischiefs in which they have been involved by the failure of the Indigo Crops for several years back.

March 30th--Returned to Nadoun and received a letter from Raja Sunsar Chund which in answer to my enquiries respecting Alexander by stating that in the time of the Emperor Akbar the property of his Ancestors was plundered and that he can afford me no information on this subject. His conduct has been particularly attentive and I acknowledge[d] my obligation to him on this point at the same time expressing as before that he will make some enquiries in regard to a matter which much interests me.

March 31st -- From Nadoun to Kotoch. 8 Kos. Road along the bed of the Beas on the left bank of the current. At about 300 feet from the Teen Peer Chabootra at the western extremity of Nadoun it crosses the nearly dry Mouth of the Koonah (before mentioned by a different spelling) and at about a Mile further on crosses also the mouth of a River Musse ke Khoo which skirts the southern flank of the valley of Nadoun running parallel with the Hills of the Raj of Juswanee and along their northern base separating this country from that of Katoch. This Rivulet as well as the

[18]

Koonah empties itself into the Beas on its left bank and each carries a large body of water in the rains for the bed of the Beas is here about a mile broad though the current at present exceeds not 100 feet in breadth. The course of the Beas is from hence NW by W and that of the road to Koloah a little more to the W. The first town on the left in Juswanee is Koulapoor belonging to Gopal Singh. The road proceeds in a line parallel with and between the Juswanee Hills and the Beas at a short distance

from each. At 2½ Kos from Nadoun it crosses the Kheeanoo Khood which proceeding from the Juswanee ridge falls into the Beas[,] and through the village of Chula ascends the Chula Ghat taking shortly afterwards a direction something more southerly and having the village of Poondeal on the left. This mountainous ridge is dry, little cultivated and little cultivable except for the crops of the rainy season. On the left is the village of Choulee on the right further Beree Bera and then Rukkur, running NW it passes through Rukkur Thakoordeehara or Chouree where I took shelter from a thunder shower and prescribed for a complaint in the eye of the Fuqeer.

On the right of the road onwards is the village of Suddo and the river or rather dry watercourse of Koloa which arises from several ridges that send their streams down different valleys. The village of Koloa or rather the assemblage of Shops of Grainsellers is placed in the angle between two of these valleys.

19

From the threatening appearance of the night we were induced to take up our lodging in the upper room of a Grainsellers shop with the snowy ridge of Chumba full in sight to the North.

April 1st. From Koloah to Rajpoora 3 Kos. Road Direction W up the Western broad branch of the Koloah Khud flanked on each side by the Koloah Hills little cultivated, the Country being thinly inhabited up to the summit of a ridge called Koloah Ghat and which separates the District of Koloah from that of Rajpoora. From this height the Doon or Valley of Juswaanee was in full view but separated by the mountainous tract of Rajpoora. Just below the ghat lies the Rajpoora ke Khud which after a course of about 6 Kos in the Hills rising from the northern ridge of Rajpoora traverses the whole Rajpoora range in a direction to the S of W generally till it reaches the village of Amb where entering the valley or Doon of Juswanee it skirts the southern face of the Rajpoora range running somewhat easterly and falling into the Sooran River which proceeds down the middle of the valley empties its waters into the Sutlej nearly opposite to Nala Gurh in the Raj of Hundoor. From the Rajpoora Ghat the road tolerably broad and good descends till it enters the bed of the Rajpoor Rivulet here about 40 feet broad, bed pebbly and sides of compacted gravel or coarse plum pudding stone.

[20]

In a few places and for a very short space the road separates itself from the river by skirting its bank but almost entirely runs down its bed till it comes in front of Rajpoora the sides being for by far the greater portion of the distance composed of Sand stone of different degrees of firm stone those of the more compact structure being in the thinnest strata.

Heretofore I have observed that the process which rounds the Stones that fall into the beds of Rivers from the sides of Mountains consists in the joint attrition arising from mechanical friction along the channel and the washing of the water but at this place or rather just below Rajpoora I noticed another process in which water seemed to be the sole agent in some instances and the principal one in others. From the more compact beds of sandstone which lay either horizontally or with little

declivity[,] knobs of stone projected from the mass of the bed with a rounded surface sometimes adhering to the layer by a long and others by a short neck, the softer parts having been washed from about them. In process of time the water detached them from the matrix and rolling and washing confirmed a globular form which however had been mainly impressed by water alone. In other places there seemed to be hard nodules in the beds of sand and the water in these cases did little more than loosen and separate them out

21

of their nucleus. The extent of this mode of fashioning round stones seems however to be very limited in comparison of that of mechanical rubbing joined with the action of water. The expression may be objectionable as water exercises the action of friction but is used in opposition to the rougher and more forceful kind produced by the rubbing of stones amongst themselves or upon the beds of rivers. The banks of Mountain Torrents composed of sand stone will be generally found to be nearly perpendicular in comparison with any other composition and also higher except when the water runs in clefts of Rocks. In angles it will be seen to be gradually cut away into a circular form and sometimes excavated at the base into caves, but this structure is not often permanent. Sand stone presents in its straight face sometimes grotesque forms from being easily cut into compartments by the trickling of water down its surface. And its detached masses of different degrees of hardness in their various parts exhibit odd contours and cavities when subjected for a long time to the full action of a heavy and rapid stream in its bed and not defaced by the hand of Man. On the right bank of the River about a hundred yards distant and somewhat more than 2 Kos from Rajpoora Ghat stands a Gate flanked by a line of Huts and having

[22]

in front some low towers which cover or were intended to cover and defend some stairs that ascend from the River to the Gates and through it to the House and Fort of the Raja of Juswanee called Rajpoora.

The Gateway is in the Hindoo Style surmounted by coped Turrets and decorated with ornaments of flowers [and] looks weak in comparison with the lower stone towers below and before it. The construction indeed is so different as to tempt me to assign ages remote from each other for their erection. However the locality is ill chosen as a place of defence being commanded by a Mountain to the NE which is easily accessible from the Eastern side. Runjeet Singh took the fort from the northeastern side and the Gateway and its defences are said to be almost all that remains of a structure that was once extensive. Below the gateway on the edge of the river are a few huts belonging to grainsellers and farther down its course on the left bank is a Mango Grove containing a Hindoo Temple and some habitations of Fuqeers. Having been always well received by religious people at the Muths I generally visit those near the road which have a respectable appearance when time will admit and according to this custom proceeded to the front of the building. I was somewhat surprized at the Fuquer not coming out of his House and at his not inviting me in or even to see his Temple. His sullen and forbidding looks induced

23

me to return the trifle I had taken from my purse and I retired from his premises.

In about a quarter of an hour I was overtaken by an armed footman who desired me to stop till the commandant of the Fort of Rajpoora should consult his superior as to the propriety of letting me pass on. I returned to Rajpoora and found my people and baggage detained. Meer Muhummud was dispatched to an Officer of Runjeet Singh who had formerly held the situation of Dewan but had been dismissed on account of a quarrel with another in the presence of the Raja in which the Dewan used some particularly strong language. In a short time I was surrounded with armed men miserably equipped with Sabres and Bows and Arrows and pistols of a very antique fashion. Meer Izzut Oollah Khan had a conference with the Commandant of the Fort who enquired his reasons for coming by so extraordinary a road. A short recital of the fact of our having been stopped by the snow[?] on one road and by the Sikhs on the other and of my determination to proceed to Lahor was made in reply as to the motive of coming into the Sikh Territory at all and as to the road[,] that we had taken the nearest and as we understood that most frequented and forming the direct line from Amritsar to Munde. It was agreed to await the result of a reference to Muggur Mull the ci ci devant Dewan who now acted as a

[24]

Commissioner of Revenue and was at a village about two Kos distant. Meer Izzut Oollah went off and returned in the Evening. Muggur Mull said at first that he was a mere measurer of land and that this affair was hardly within his competency to decide upon. After more conversation he wrote a Note to the Commandant but not satisfied with its contents tore it and finally sent his Seal with a verbal message that if blame should arise from my proceeding it should fall upon him.

Meer Izzut Oollah found him a well informed and remarkably facetious old man. He had heard of our having men[?] concealed in Trunks and on being informed that perhaps there were 50 packages supposed to contain such kind of merchandize was much amused. To me he sent a very civil message.

April 2<sup>nd</sup> -- March from Rajpoora to Tuttera

The message sent by Muggur Mull through his own servant was satisfactory to the Commandant and we began our march rather earlier than usual. Whilst conversing with the Sepahee who stopped me yesterday an old Fuqeer who was proceeding on the same road came up and with much earnestness told him that I came not to quarrel or to fight but with quite a different object and passed on before I had an opportunity of acknowledging his disinterested assertion--and whilst I was endeavoring to recollect him as his features seemed not wholly unknown to me

25

Direction of road S by W down the bed of the River of Rajpoora. At a Mile close to a Mango Grove on the right on a surface raised a little above the bed a considerable watercourse from the right comes into the Rajpoora but at present conveying only a small stream and about two hundred paces a second from the same quarter. Still onwards but on the left is a small field cultivated with some Mango Trees and a

water Mill the cost of which including the water tank did not exceed 6 Rupees and it was capable of grinding Maunds of hard Maize and bringing [it] into fine flour in 24 hours and it required only the labor of one boy. This apparatus might certainly be applied with great advantage to some farm houses in England.

The village of Busuntpoor is on the right bank and that of Tistal on the left bank of the River the Mill being between them but they are not seen from its bed. On the river escaping from the Mountains 4 Kos from Rajpoora Fort the village of Umb[?] appears on a height in front and the road turns along with the River to the SE but quits it shortly following the hedge of a Garden containing Apple, Fig and Mulberry Trees. The road here enters in the great valley of Juswanee, the river deserted on the left the direction of our path S by W on a plain sandy, stony and covered with tufts of coarse Grass near Umb.

[26]

Our path traverses it obliquely and its features improve as we advance. The plain has upon it great herds of Buffalos, Neat Cattle, Sheep and Goats and I saw a few well shaped brood Mares in excellent condition. Although somewhat lower than I like its dry sandy soil and its excellent running water render it less ineligible for cattle breeding than most places I have seen in India. The Road crosses a narrow current of fine water about 18 inches deep running down the Valley near the middle and afterwards the River which shapes a like course. Its bed is broad but its three streams collected do not now exceed above 50 feet and are not more than a foot in depth. This River receives the Rajpoora and many other Streams from the Hills on each side of the valley and delivers them as has been before said into the Sutlej. The Valley is about 1½ Kos across flanked on each side by the Juswanee Hills under different names terminates easterly at the Sutlej and westerly is bounded by

---

It yields a Revenue of 1,16000 Rs a year. Its general line of direction seems to [be] from N to SE. Leaving the valley the road follows the left bank of the Tuttera Khud. Tuttera is only a small Bazar of Grainsellers Shops. Soon after our arrival two persons also came from Muggar Mull to see that we had every accommodation the place would yield and to ask for

27

some medicine. Distance 10 Kos.

April 3<sup>rd</sup> -- March from Tuttera to Hoshearpoor. Road crosses Tuttera ke Khud. Direction SW by W. The angles of the rivulet are so sharp and frequent and the valley so confined that in the lapse of thirty five minutes it is crossed eighteen times. It then continues in the narrow bed of the Rivulet rough with stones and overgrown in places with low bushes of the Nerium Oleander and enclosed[?] between high and steep jaws[?] of Sandstone. At the division of the bed into two branches the left or southernmost is taken and ascends by a narrow winding and steep path cut out of soft sandstone which when it has reached the summit continues a tortuous course along ridges betwixt deep ravines. The steep ascent took up ten minutes. The distance from Tuttera to the foot of Tuttera Ghat is one Kos and from its bottom to a large Babool Tree on a piece of table land commanding a view of vast plains another

Kos. The road for a very short distance runs to the E of S then to S descending easily by a path sometimes cut in the soft sand stone of the depth of an ordinary mans height and then of such a breadth as will admit only of one man but in generally either the path when thus narrow is multiplied into two or three or [it] will allow of two men abreast. The depths are not particularly formidable though they would be scaled with difficulty and are almost impracticable

[28]

if attempted in the face of an enemy. From the top of the ascent of Tuttera Ghat to the head of a small rivulet of good water the distance was 23 minutes at the rate of 2½ miles an hour principally descending but the road was crooked. The path now goes along the bank of the rivulet on a plain due West for a quarter of a mile and increases rapidly in water and in breadth of bed by springs. It is now formed of two branches the road follows the course which receives both and runs S The bed is narrow sides high straight and of sand stone. As the Hills diminish in height declining rapidly towards the W and S a little stripe of land separates in some parts the stream from their base. A few huts are placed on a patch of cultivated land in the left and onwards[?] there is a single Cottage on an elevated nook on the right. The sides of the River lose their hardness and steepness and receding Cliffs of Clay and Sand with thin Strata of Clay stone nearly perpendicular but generally with a declination to the S soon fall to little more than small heights. On the left is the village of Moonhkala at which this change begins strongly to be marked and where the stream is absorbed [in] the broad bed of the river consisting only of deep white sand. The length of the road from the entrance into the Jaws of the Moonhkala River in the Hills

29

to its opening at the village in the plains I consider about 4½ Kos. The time was one hour and 38 minutes the road cool shaded and declining. Having passed Moonhkala the plains open to the S bounded for a short distance on the right and left by low ridges which soon lose themselves[,] the left at Dudha where there is a round brick tower with a flat top at about 2 Miles from Moonhkala and at the right at Sherpoor where there is a well on the road and some cottages on the right. The river divides into several broad sandy and shallow branches which run along the plain to the S of W but the path proceeds to the West crossing obliquely a large watercourse from Hoshiarpoor then through an extensive Mango Grove on its right bank and passing the walled town of Bahadurpoor near to the Gate[,] led to Hoshiarpoor at little farther distance than half a Mile. We encamped close to a Moosulman burying ground. Sherpoor is about 2 Kos from Hoshiarpoor and the whole distance of this days march I take to be ten Kos.

The range of Juswanee Hills to the S is a line most suceptible of defence by its natural means water and stones. The river might be easily blocked and its sweep when its barrier should be broken would be inevitably destructive if a party were engaged between its deep sides.

[30]

There are it is true almost always two road where there is a river road but the mountain path is always scabrous and circuitous and seldom used except in the wet season as the river road is at other times much less difficult. In the valley whence the Moonhkala Rivulet springs many of the Oleander bushes were covered with flowers which gave occasion to a Hindoo Mountaineer to observe that Hindoo women poisoned themselves with the Seeds of this Shrub in consequence of domestic unhappiness.

I remarked in this days march a line of Seeshoo, Peepul and some other Trees about a foot high springing out of a Stratum of vegetable Growth between beds of Sandstone. The superincumbent Masses were at least 60 feet below the surface of the ground, the face of the cliff was perpendicular so that there was no ledge for seeds to fall upon and lodge. That they should have first been deposited with the Stratum of Earth and have sprung into life when the partial breaking down of the Cliff exposed them to the action of the Sun and weather after they had been dormant for ages seems difficult to comprehend but notwithstanding form the only theory that will explain the fact.

March 1 4<sup>th</sup> [sic; sc. April here and in following entries] Hoshiarpoor

At an early hour a considerable number of

31

armed persons came to demand the duties on our Goods. I directed every article to be shewn to them even to my Books and small writing Desk. A box covered with a skin sewn up with care was shewn as intended to be presented to the Raja, the searchers said it must be opened but were told that they might open it if they pleased as they knew it was presumed what was proper on such an occasion. A Bunea of the name of Dilbagh Singh was it would seem the Thanadar but did not make his appearance, he deputed as he said a person to represent the affair to Lala Shewdeal who was at Phoolar 30 Kos distant and stated that till he heard from him we should not proceed.

~~March~~ [April] 5<sup>th</sup> and 6<sup>th</sup>. An answer was promised on this day but did not arrive.

~~March~~ [April] 7<sup>th</sup> -- A messenger came from Dilbagh Singh to state that his orders from Lala Shewdeal not to permit us to go on till orders to that effect came from Ranjeet Singh to whom he would write and desired me to do the same. This expedient did not suit my views and I returned for answer that I declined so doing but should send Meer Izzut Oollah Khan with an explanation of the matter as it truly stood to Lala Sheodeal. I declined writing from a persuasion that he was fully acquainted with my motives for coming on the road I had taken and that if I were ever engaged in correspondence with him it would be not difficult to start objections

[32]

which would produce great delay but that having all the facts before with him and Izzat Oollah at hand to explain he would speedily be brought to a determination to accede to my progress or to assign reasons. And if he continued to refuse Meer Izzut Oollah was instructed to state his determination to go on with my representation to the Raja. My Memorandum stated that I was the Superintendent of the Hon

Company's Stud that my business was to improve and diffuse the breeding of Horses within the Company's territories -- That thinking the breeds in the Punjab likely to be useful in this matter the Govr Genl in Council had directed the resident at Dehli to request Maharaja Runjeet Singh to permit me to visit his Country to purchase some individuals more especially of the Districts of Dhaen[?] and Ghep[?] to which the Raja agreed, but that other business at that time prevented me from visiting his territory. That having seen some horses of Balkh and Bokhara Toorkmens and others I had approved of them and had sent Meer Izzut Oollah Khan with letters from my self to Mahmood Shah the King of Kabool to Futteh Khan his prime Minister, to Meer Qubech[?] Ulee Khan the Ataleek or Wazir of Balkh and to Meer Ameer Hyder Meer Ool Moeneen King of Bokhara to ascertain their disposition to allow me to purchase Horses in their respective Countries and to afford me protection. That the King of Kabool his Minister and the Wazeer of Balkh

33

had answered my letters by inviting me and by promising every assistance in their power by letters which were at Munde. That the King of Bokhara from the circumstance of a war existing between France and Russia with the latter of which powers he was in connection and apprehending some involvement and not receiving any letter direct from the Gov<sup>r</sup>. General declined giving any decided answer. But his Minister Hakeem Be represented as from his Majesty that Strangers are not prohibited from visiting his Country to purchase Horses.

That it was well known the mode in which foreign Merchants transacted business in Balkh and Bokhara consisted in taking merchandize there which when sold was applied to the purchase of Horses. That some English Merchants of eminence in Calcutta were desirous of sending English and other merchandize to the Countries in question for the purpose of buying Horses with the proceeds provided the British Gov<sup>t</sup> would permit me to conduct the transaction. That the Gov<sup>t</sup> gave me permission to proceed to the Northwestern parts of Asia for this object and the Most Noble the Gov<sup>r</sup> Gen<sup>l</sup> had affixed his Seal to a document to this purport, which document was with me. That in prosecution of this object declining the road by Kabool on account of the disturbances that presented there I had taken much merchandize towards Neetee Ghat intending to cross the Himaleh at that place and proceed up the Country of Tibet.

[34]

That I was prevented crossing the Ghat by a fall of Snow and to avoid delay as much as possible took the road by Munde and Kooloo to Ludagh. This road had been frequented from time immemorial by Traders of many Countries and religions as Hindoos Moosulmans and Armenians and no one had been prohibited from passing along it. That finding these Countries tributary to Raja Runjeet Singh I had prepared a letter exhibiting my motives for traversing them without giving him previous notice and stating my intention of explaining them more at large in person on my return. I proposed giving it to the first Sikh I might find charged with any business from the Raja or otherwise committing it to the care of the Raja of Munde for transmission. But that on my approach to Munde I was forbidden to proceed



unless either I had the permission of Runjeet Singh or unless I would pay the duties for my Merchandize if I was a Merchant. That I answered them by stating where I was going and my readiness to pay the accustomed duties. But if they should decline taking the duties and insist on preventing my progress I would proceed to the presence of the Raja myself. That they declined to take the duties or to write regarding them and said in writing that I might go or send to the Raja as I might prefer. That I had left my merchandize at Mundeel under the care of a young Gentleman, my assistant and of fourteen persons

35

as a Guard. That at Hoshiarpour I was detained by a person called Dilbagh Singh who referred to Lala Sheodeal and that I sent this memorandum to him by Meer Izzut Oollah Khan. That I wished to see the Raja as I had matters to communicate which could not satisfactorily be done on paper. This Paper I signed and sealed and Meer Izzut Oollah waited merely for a person to accompany him on the part of Dilbagh Singh. This man is said by Meer Izzut Oollah to be an ill looking personage whose coarse language and bearing correspond with his figure.

~~March~~ [April] 8th -- In the course of last night Meer Izzut Oollah commenced his journey. The sensation produced by my journey into this Country is most extraordinary. Two days ago a Hurkaru from Runjeet Singh came in the evening to my Saeeses and conversing with them said that he was a native of Furokhabad and had been dispatched by his orders to Mundeel to learn the grounds of the reports which had reached him respecting a British force having taken Mundeel displaced the Raja and set up another and to ascertain whether it was true that there were Chests of Artillery and to learn the exact force of the Corps now with me at Hoshiarpour. This man had previously seated himself in the crowd of applicants for medical relief that surrounded me and stated that he would return with all possible speed. Today I have received a letter from the Commandant of

[36]

the Fort of \_\_\_\_\_ in Gooler Huneepoor about 12 Kos distant expressing his opinion of the impropriety of my going to Lahor until I should receive the orders of Runjeet Singh and that if I dare to come by his Fort that he will certainly take me Prisoner. The reports of yesterday were that after taking all the Country on the borders of Tataria a detachment consisting of two Regiments had possessed themselves of Joalamookhee. Whilst at Rajpoora the Servants of Muggur Mull had spoken freely of a report which had spread great consternation in the whole of this country and of which the truth was ascertained. In a tract on which meet the roads from Kashmeer the fort of Atuk and Peshawar is the fort of Derbund surrounded by the tribe of Puthans called Kuther. This Country is of several days journey in length but not broad and its surface consists principally of ranges of low hills. For about four years first[?] it has been in the possession of Runjeet Singh though loosely and the inhabitants were in great measure left to themselves undisturbed by the interference of the Sikhs either in their religious or domestic habits. But on Kashmeer being subjugated by the latter power a stricter rule was established, where the assessment was light it was greatly increased. Sikh Soldiers according to

their custom quartered themselves upon the villages helping themselves to what they like, Thanahs were set up and the Moosulmans were prohibited practising the forms of prayer as prescribed by the Prophet.

After having submitted to this new order for

37

a short time the Kuthers found it too irksome and held private consultations amongst themselves the result of which was that it was better to die all together with arms in their hands than to be exterminated piecemeal. A small body first tried their strength upon a Thanah establishment consisting of about twenty men. From about a hundred and fifty peasants their numbers increased to several hundreds and they presented themselves before the Fortress of Derbund placed close to the junction of the roads before mentioned. This was garrisoned by Sikhs under the command of Dewan Singh Ramgurhea who had assembled troops to the amount of from four to five thousand in the vicinity of the Fort. The Kuthers were for a time repelled or fell back intentionally but the Sikhs being ultimately worsted endeavored to take refuge in the fort into which they entered accompanied by the Kuthers who conquered them and \_\_\_\_\_ the Fortress.

On the news of this disaster Troops were hurried upon the Country of Kuther from Kashmeer Atuk and the Punjab under the command of Rumdeal Singh, the Son of Motee Ram the Dewan of Kashmeer, of Futteh Singh Alooowala and of some other of the best officers then available. The Kuthers were not idle but displaying the trophies of their success called upon their countrymen so energetically and so effectually that in a few days the whole population of this Country was in Arms. The contest was extended along

[38]

a great line and it is said that they decoyed the Sikhs by a feigned flight into a valley the access of which they speedily closed to prevent their retreat and by means of stones and firearms destroyed many of their antagonists as long as the day remained.

Whilst this scene was acting in one part it is stated that Ramdeal somewhat extraordinarily was separated from the main body of the Troops under his command and had taken his station on a Hill somewhat insulated where he was surrounded by three or four hundred of his principal Men. Intelligence of his almost insulated condition was conveyed to some Kuther troops who found themselves strong enough to detach some troops from the service in which they were engaged with a view to surround him and this measure was effected with success Ramdials adherents flying and leaving him alone. It is reported that the Kuthers who came upon him offered him life and even promised allegiance if he would engage that they should be allowed the full exercise of their religion and be governed with mildness. The Sikh replied that he preferred death to returning with disgrace to the Raja and had the face cut nearly off the Skull by a stroke of a Sword.

It is said that his body was recovered before his life was gone though he had received six wounds and his right hand was severed from his body on account of the

Gold Bracelet round his wrist. That he desired the Raja to be informed of his having been deserted by his principal people. He was it would seem a gallant Officer and had the confidence of his Troops and the esteem of his Countrymen. His fall is considered a national loss and one that the Raja will find it difficult to repair. Further particulars are not known here though it is said that the defeat has been most severe and that Futteh Singh Aloowala is among the wounded. When I was in Tatory before I was not allowed to proceed onwards because Ranjeet Singh was attacking Kooloo and was thought would conquer Kashmeer. I am now stopped in the Punjab, in great measure as is probable from a reverse that has occurred to his Troops after he has conquered Kashmeer. Reports are circulated also of disasters at Munkera but these are perhaps only of the coinage of apprehension and alarm to which the common people of this Country seem especially liable. I am particularly anxious to see the Raja as the moment seems especially favorable to the accomplishment of my views. However unfounded may be his conclusions he will not fail to conclude that my journey into Tatory has other objects than those of commerce and Horses and the frankness of my explanation will not remove his doubts. Leaving him to his own deductions I shall first endeavor to obtain his permission to continue my route by Munde

[40]

and Kooloo, then lay before him the frequent plunder of Merchants on that route and the confidence of security in his territory as a ground for permission to have a House in Kashmeer as a Depot. In expressing to him the sentiments of the Gosheins of Joalamookhee respecting the great decline of the Commerce in Shawl by the upper road from Kashmeer to various parts of Hindoostan I shall explain more particularly the causes of this decline as it is equally probable that they have not come to his knowledge as that he should not discover the facts except through the diminution of the duties on Shawls. Futteh Ulee Shah the King of Persia found that each of his Horsemen from the highest to the lowest ambitioned to have a Shawl for his Turband and another for his Girdle. That the prices of these often involved the purchaser in debt and produced many consequent irregularities in his conduct. In order to strike at the very root of this evil and to keep the money of the Soldiers within his Country his Majesty ordered that no persons in his dominions should wear a Shawl of Kashmeer save the members of the Royal family. This has forced a most severe blow on the Shawl trade of Kashmeer and the Goshein Carriers were amongst the first to feel its effects. I shall then shew him that France has actually procured a great number of Shawl wool [goats] and is feeding them upon her own Mountains in order to procure materials with which she will manufacture Shawls

41

both for her own use and that of her Neighbors. That Russia will not fail to follow her example if it be not already anticipated. I will then exhibit some patterns of our Kerseymeres of Merino wool and state to him that if Shawl Wool of Tibet even were wanting to improve our Manufacture of Shawls, sooner or later it would be obtained considering that our frontier now touches upon that Country and the inhabitants

cannot for any long period shut their eyes against the advantages they must derive from a free commercial communication with our Traders. With every prospect of diminished revenue through the failing Shawl trade of Kashmeer I will shew that if he timely adopts my views he may derive by degrees a large revenue by allowing a road for commerce from Hindoostan to Tatory by the way of Umritsir and Kashmeer and fixing a moderate transit duty on the Merchandize passing backward and forwards. I hope also to do something towards impressing him with a taste for some of our manufactures with patterns of which I am now amply provided. The task is perhaps not easy but if I can reach the Raja I think it may be accomplished if not all at once at least by degrees. And I must dwell most especially on my being permitted to traverse Kashmeer [illeg.] with or without Horses if the roads of Tibet or Kabool be shut or if the former appear preferable.

[42]

~~March~~ [April] 9th -- Hoshearpoor--Surgical Observations -- Case of Cataract  
Yoonoos Khan aged 60 years has been blind 5 years from Cataract. The forming of the complaint in the right eye has proceeded and accompanied by great pain in the right side of the head to relieve which he had a caustic applied to the right temple but ineffectually. He cannot distinguish between darkness and a strong light. The Pupil is circular of the same size with the other and acts equally on exposure to light. The color of the cataract is greyish white a little stained with a yellow tint. There is a circular rim on the Cornea at its union with the Sclerotica which might be mistaken for the Circulus Senilis but that the opposite eye is almost free from it and it is equally broad at the two angles as in the other parts of the periphery whereas the dimness in the real Circulus Senilis is generally broadest in the middle of the upper and lower segments of the circle. Although this Pupil extends as much as the other I cannot see any space in the posterior Chamber when looking laterally into the eye between the opaque Lens and the Iris but I can distinguish a space in the same place in the other eye. It is to be apprehended that the pain in the right temple proceeded from inflammation in the eye and as the Cataract in the left eye formed without pain that the inflammation in the right has affected the Retina. The color of the left Cataract is less white and of a deeper yellow. The Ext. Stramon. was put into both Eyes on the evening of the 8th. On the morning of the 9th the needle after passing through the disk of the Lens of the left eye and lying upon its surface broke the anterior

43

lamina of the capsule in its centre and further pressure caused it to separate in its whole circumference with a fringed edge and buried it in the vitreous humor, but on the needle being raised an edge of the [illeg.] rose so as to fill the lower third part of the Pupil but on being slightly touched again remained hidden. The Patient said he had scarcely felt pain during the operation but several drops of fluid stained with blood ran along the needle whilst its point was employed in breaking down the adhesion of the Capsule to ciliary circle which I conceive to have been aqueous humor Note: This happens generally with the spear pointed needle of which the shaft does not from the spear immediately become a cone and occurs most

frequently after the Cataract has descended a little. The blood comes from the Choroides or vesicles of the Sclerotica and Conjunctiva. Two blebs have been formed one each side of the puncture in the Conjunctiva but I have not witnessed this occurrence or extravasation of aqueous humor except in a most minute degree with Heys Needle well made.

My patient would have been satisfied with the operation on one eye but the lively movements of the Pupil though perhaps only from consent with those of the other gave me hopes of restoring vision in the right eye also.

As soon as the Needle had cut the anterior portion of the Capsule of the right eye a small quantity of wheyish colored fluid escaped from its Cavity into the anterior chamber but did not prevent the point of the needle being clearly

[44]

seen. As it sunk easily into the substance of the lens it was hoped that this body might in parcels have been turned out in parcels through the dilated Pupil into the anterior Chamber. But on working more deeply there was an unexpected resistance and on pressing more strongly and just after the giving way of the circumference of the Capsule whilst it was thought the lens was successfully descending it suddenly turned between the needle and the Iris blocking the Pupil and presenting an unusually convex posterior surface of a deep amber color. The Iris was pushed by it a little forward its inner circle or Rim was suddenly suffused as if blood had been instantly extravasated into its substance. The Needle was raised above it and the Lens a second time eluded its pressure after having been taken low down into the Eye, but a third attempt buried it in the vitreous humor. As soon as the Lens in rising pressed upon the Iris the Patient gave signs of suffering and said that he had no pain in the left eye but severe in the right temple. In the Evening I was informed that the pain in the temple continued and was greatly distressing. He was too far distant in the town to be conveniently brought and entrance being from circumstances apparently prohibited to me I recommended the temple and eyelids to be covered with Leeches.

~~March~~ April 10th -- The Leeches had not been used, the Patient complained of agonising pain in the Temple had vomited several times, His right upper eyelid was swollen, the Conjunctiva very turgid

45

and the Pulse though not much quickened was particularly full and throbbing. A branch of the right Temporal Artery very near the Pupil was cut across. It bled a little retracted and stopped. The Trunk a little lower and nearer the Ear was divided but after having thrown out about two Ounces of Blood its cut ends also retreated and ceased bleeding. The Patient said he was wholly free from pain but as the strong action of the radial Artery continued he lost blood from the Arm till the pulse began to flutter and he was on the point of fainting. 11th. Has been free from pain. The Eye less inflamed but the Conjunction was rising about the Cornea and the interior on a hasty glance seemed muddy. Gave him a quarter of a Grain of Act Tent 3 times a day. 12th The pain has not returned but the left Eye being still loaded with blood in the Conjunctiva leeches were applied.

20th -- The right Eye a little tender but he distinguished objects pretty well. The left is still irritable and vision confused.

[The remaining half page is left blank, as if Moorcroft planned to write the further details of this case-history, but never got round to it.]

[46]

April 14 -- Meer Izzut Oollah reports his mission to have been unsuccessful. Shewdeal says he has forwarded an account of what he has learnt respecting me to the Raja and I must wait for an answer. According to my instructions in case Shewdeal should act thus Meer Izzut Oollah stated his wish to proceed to Runjeet Singh to which after some demur he consented and at the Meer's request directed Dilbagh Singh not to offer any hindrance to his progress.

The order to the latter commanded him to take great care that I should go neither forward nor backward [3 words illegible in parentheses] till the pleasure of the Raja should be signified but that I should not be treated with disrespect.

April 15 -- Meer Izzut Oollah went off to Umritsir with a letter to Raja Runjeet Singh and the Abstract I had drawn up for the consideration of Shewdeal. The death of Ramdeal has transferred per interim on Shewdeal a power he had forfeited by misbehavior. Ramdeal, Shewdeal and Kirpa Ram are the Sons of Motee Ram Dendu of Kashmeer and the second was entrusted with the management of the Doab between the Beas and Sutlej under his elder Brother Ramdeal, but on frequent complaints of his abusing his power by sending for the wives and daughters of the Peasantry to his House and by other acts of tyranny and oppression he was deprived by his Brother of his Office and thought it prudent to fly for refuge to Pateeala.

47

On the death of Ramdeal he returned to his former situation and probably hopes to recommend himself to the favor of his Master by the proof of vigilance he has given in detaining me.

April 20 -- A letter from Meer Izzut Oollah dated 18th Umritser informs me of his arrival at that City on the 16th and of his reception by Desa Singh the Governor. Desa Singh asked him why I went without formally announcing my intention to the Raja and Meer Izzut Oollah explained that it was not originally my intention to pass through the Sikh territories. The motives of my journey were discussed and eventually Desa Singh stated that he had written to the Munde Raja to request [?] my young friend to be treated with attention and he desired him to inform me that he would despatch a confidential person with orders to Shewdeal and Dilbagh Singh to release me and that I might proceed with the former to Umritsir in progress toward Mooltan where the Raja now was. I directed Meer Izzut to wait for me at Umritser that we might go together. During my residence at this place I have given up four hours a day to the performance of operations prescribing for and giving medicines to all classes of persons.

Operations for Cataract --12 --

By far the greater number of these have risen again and I have performed the operation a second time. From comparing the results of success when one and when successive operations have been performed I should

[48]

had I leisure to remain ten days at any place prefer accomplishing the cure by two or more operations than by one as it appears that the sum total of pain in them in general is not equal to that of one operation when either in the act of carrying the lens down it presses forward upon the Iris, or when lodged in the vitreous humor it touches this Membrane or where it lies naked upon the Retina or has been pressed strongly upon it. Nothing can be more judicious than the cautions given by Mr Hey & [illeg.] to avoid doing too much at one time. And I am more fully convinced that the pain and inflammation are always proportioned to the degree of violence done to the organ. This indeed may be said to be a truism and requires explanation. I ought to have said to certain parts of the eye. The degree of reaction will be in proportion to the size of the wound in the Sclerotica Choroides and Retina, to the disturbance of the Iris by tearing, wounding or pressing that Membrane and to the injury of the Retina at the bottom of the eye by wounding with the point of the Needle or by pressing with it upon the dislocated Lens. I have rubbed down the sides of a beautiful Needle made by Stodart upon Sir A Adams's Model for cutting up the Lens. The fault I found with it was that it permitted the aqueous humor to flow along the blade from the shaft not filling the hole

49

in the Sclerotica when its point had pierced the anterior Lamella of the Capsule. I may be told that the Sclerotica is elastic and that the accident is not frequent. I will continue to assert that with a needle made on this principle the effusion will almost always take place and this is not extraordinary considering the eye is full when the needle is introduced and that the Sclerotica is ligamentous and little elastic. The fluid that escapes bears some proportion to the bulk of the Instrument. With Hey's Needle this accident must happen in a degree when it is necessary to withdraw the Needle partially and to push it on again on finding the depressed lens rising. But if this latter needle be cautiously introduced and when having pierced the nearest part of the disk of the Lens it perforates the capsule and carries down at one movement the Cataract fluid will scarcely ever escape. I know not that the loss of this fluid is materially injurious. It may prevent tension or the reaction consequent upon it or it may speedily be replaced, but I think that the reaction has been more strong when a considerable effusion has happened that when there has been little or none. However this difference may have been owing to the conical needle being smaller than the half rounded one. The Cataract is more apt to slip upwards or on one side from a round needle than from a flat one and the Capsule is torn with less facility yet on the whole

[50]

I prefer it from the little reaction that follows its discreet use. It must be remarked however that reaction will depend also on the actual state of the eye and of the condition of parts which gave rise to the Cataract. In adhesion for instance, the art of breaking up the connection between the Capsule of the lens and the Iris will produce greater re-action than the tearing the natural connection of the former with

the ciliary Processes. And every thing else alike if the Cataract has been preceded by pain in the head, pain in the head will frequently follow the operation although delicately performed. But the vitreous humor may be cut up largely and little reaction follow, if mischief be not done to the Iris or Retina. I have found a cataract that resisted the Needle on the first operation, cheesy or pasty on the second and only in the interval of six days.

Trichiasis or inversion of the upper eye lid -- 3 cases. The results have been satisfactory. I have taken away the Tarsus[?] completely preserving the lachrymal Point.

Staphyloma -- 4 Cases -- The fore part or protruding Cornea anterior to its union with the Sclerotica was removed and little pain followed, but when I cut off a portion of the Sclerotica with its lining of Choroides & Retina the pain was violent and the reaction great. I apprehend that when

51

the Staphyloma is confined to the Cornea, its incision and the removal of the Lens will suffice for the meeting of the eyelids and they will be so supported as to prevent the hollow and deformity from the complete emptying of the eye. In a girl I took off the Cornea and extracted the opaque Lens baring the posterior Capsule or Hyaloid Memb[rane] entire. In 3 or 4 days this Membrane projected through the Iris and before the cut edges of the Cornea, but in ten days had retired nearly to a level with them and as they had contracted singularly I trust that the fulness of the Globe may be preserved. This approaches the old operation of [illeg.].

Nebula -- I am not satisfied with the excision of the varicous vessels -- during their varicous or rather turgid state -- I apprehend that it would be better to empty them first and afterwards to cut off a circle.

Obliterated Pupil -- Several have fallen under my observation but I have not satisfied myself on the best mode of attempting to make an artificial Pupil.

Trichiasis -- In general there appears a deposit in the substance or on the cornea part of the Tarsus making it thick burly and preternaturally prominent and ordinarily a thinning or absorption of the lower part or inside of the convex part.

25<sup>th</sup> -- I have operated on 25 cases of Cataract and have had no violent inflammation since I reduced the size of the needle. I think that even the tough membranous Cataract, congenital, or beginning in

[52]

infancy and not touched even till 16 or 18 years have elapsed from its formation will be dissolved if the ordinary operation of depression be frequently performed and little be done at each time. This opinion is founded upon what appears to be taking place in the eyes of a Brother and Sister both cataractous the former 14 and blind from 7 years of age the latter 17 and from the very unsteady state of the eyes I conceive to have been blind from birth, though the father says the disease took place only at 7. The Eyes of the Boy contained each a small nucleus of Lens in a tough Capsule most strongly adhering to the Ciliary Ligament. The Cataracts of the girl consisted only of Membrane without any Lens. In the Boy I succeeded with difficulty in opening the anterior lamella of one Eye but could not depress it, till the



2nd operation after which it rose again but on the 3rd appeared softened and to retain its situation when buried in the vitreous humor. The Cataract of the Girl sunk far behind the Pupil stretched on the needle like a piece of loose wet parchment and the first time I failed in attempting to penetrate it. The 2nd time I rubbed a hole through it formed a noose for the needle and detached the whole of the upper part which I folded down after having withdrawn the needle from its engagement and buried the detached part in the vitreous humor. The next [day?] it resumed its place. In 5 days more I repeated the operation merely by squeezing and doubling it down and it retained partly its position a portion only rising above the lens on edge of the Pupil and this evidently thinned.

53

April 25 -- Hoshiarpoor is a large Town surrounded by a Brick Wall and at the distance of a few hundred yards is another town separated by by Fields and Gardens is another walled town called Bahadurpoor. The later is nearly deserted but the former is very populous. The population of Hoshiarpur consists principally of Weavers, Dyers, Confectioners, Grainsellers and turners of wood. The Weavers are almost all Moosulmans and extremely industrious, religious and orderly; the other artisans consist of Moosulmans and Hindoos. The Garrison for there are about ten Horsemen and thirty Footmen in the two towns consists almost entirely of Sikhs. Hoshiarpoor manufactures a large quantity of cotton cloths principally of light texture as Udrus[?], Serisaf, Aghabanoo, Bafta, Bahadree Turbands & some Charkanees with much Guzzee. The Udrus[?] Serisaf, Baftas and Turbands have an extensive sale. Westward they first go to Pateeala, where a portion is detached to Dehlee and a second part to Jaepoor and Bikaner where it spreads over the Dukhun. The former consists of white goods alone. The latter of white cloths and such as are dyed red. Kabool takes off the coarsest Cloths - Umritsir vends all kinds. But Factors from the western parts of Asia as Herat Balkh & Bokhara prepare assortments of the finer sorts in the neighborhood of this town and Moghuls from Yarkund take the same description, but from the great distance and difficulties this trade is not now as extensive as it was.

The Water of Hoshiarpoor is particularly favorable for speedily whitening cotton cloths and Soap

[54]

is good and cheap. Cotton is raised abundantly at the foot of the neighboring Mountains. Its present price with the seed in it in the market of Hoshearpoor reduced to the terms of Ser and Rupee is 12 Sers of 80 Muhmood Shahee Rupees for a Sicca Rupee. This is said to be dear and it sells more commonly at from 16 to 20 Sers per Rupee. Two kinds of cotton wool distinguished by the names of Gurma and Nurma are raised from the same plant at different periods of its age. The seed is sown in Cheaet and the crop is pulled in the month of Kartik following. The produce of the first and second year gives the variety called Gurma, that of the 3 and succeeding years when the plant is allowed to continue so long constitutes the 2nd variety or Nurma. The fibre of the latter is softer and finer than the former but as it is weaker and is more difficult to spin and to weave but little is raised. There are

two processes of preparing it for the spinner viz one for fine and the other for coarse goods. That for the former is more tedious and a little more expensive than the latter. Every Nodule of Cotton is taken singly and the fibres adhering to the Seed are slightly scraped between the finger and thumb nail so that a Star is formed of which the seed is the centre and the fibres of cotton diverging from it compose the radii. The loose and tangled fibres are separated and set at liberty and all impurities completely detached. Thus picked the Cotton is passed through the common Mill consisting of two Cylinders and then is again

55

cleaned by the hand after which it is submitted to the Bow String by which its fibres are completely opened.

	Rs.	As	P
The 1st process of picking in the Star form is called Uthee[?] and costs for five Sers	--	2	--
The 2nd of milling called Beluee[?] costs	--	--	5
The 3rd of handpicking or Toombree[?]	--	2	--
The 4th of boxing or Doonee	--	--	2
Thus the expense of cleaning 5 Sers is	--	4	7

Five Sers of Cotton with the Seed will yield one Ser of moderately fine Thread such as is used for Udrus[?] Bafta Charkanee Seresaf and Aghabanoo and the spinning it costs R 1 - 12 - This added to the prime cost of the Cotton say 7 anas and the cleaning brings the cost of a Ser of Thread of 80 Siccas weight to Rs. 2 - 7 - 7. But if such Thread be bought in the Bazaar it cannot be had for less than from 6 to 8 Rupees per Ser. The Cleaning of Cotton for the coarse thread employed in making Guzzees is performed by whipping it with switches, milling and bowing and costs 4 Anas per 5 Sers. The yield of five Sers of raw Cotton is one Ser and four Chutauk in Thread, the spinning costs 6 anas per Ser 4 Ch[atauk] this with the prime cost of the cotton 7 anas and the cleaning brings the cost of 1 Ser 4 Chutauk of coarse Thread to Rs 1 - 1 - One Ser of this Thread will make a piece of Guzzee Cloth 18 yards in length by 10 [illeg.] in breadth and the weaving costs 6 anas. The established Bazar length of each piece is 14 yards.

[56]

Udrus - Breadth 2 feet - 11 inches. Length 9 yards and 3/4--weight 54

Fur[rukhabad]. Rupees - Price 4/12.

Aghabanoo - 2 feet 11--9 yards - W<sup>t</sup> 58 Rs Price 5/12. Sprig Pattern. 2nd sort Lozenge with flower in the middle - 2 8½ broad 9 yards long - W<sup>t</sup> 56 Rs Price 4/4 Siresaf .2-10. Length 9 yards -W<sup>t</sup> 29 Rs Price 4/10

[rest of page blank]

57

Hoshearpoor

Surgical and Medical Observations--

Cataract with contracted Pupil oblong and placed near the uppermost part of the Iris of long standing and preceded by pain in the head. The Sclerotica bony and the Lens so hard that when the Needle had reached the Pupil its substance was so solid that I could not remove it. The color was yellowish white.

I have operated upon about forty eyes and the inflammation has been in general but trifling considering that my Patients frequently remained several hours in the glare of the Sun every day and many tied the light compress over the eye so tight as strongly to leave its impression on the lids. No Eye has suppurated nor has any Pupil been obliterated or materially deformed. The Iris has in no instance been perforated during the operation or torn from any part of its circumference but in several cases of adhesion a little muddiness has followed the separation of the Lens from this Membrane and in two eyes there has been a deposit of coagulable Lymph in the anterior Chamber but which did not exceed half the width of the Iris and left the Pupil clear. No circumstance in the operations on these eyes rendered the inflammation from which it resulted probable and it spread not to the Retina. In one instance the needle was held so tightly at its point that I found through an irregular movement of the head of the patient or of my hand it had pierced the Sclerotica on the opposite side of the Eye but on

[58]

Surgical and medical Observations  
measuring the length of the blade out of the eye I found this impossible. On withdrawing the needle and changing its direction in the subsequent introduction the Lens was dislodged and buried though not without repeated efforts.

Sickness without any very considerable inflammation lasted at intervals for three days when I learned the state of the Patient but the irritability of the Stomach had ceased. I have not found Vomiting common but when it has occurred the benefit from the exhibition of Opium noticed by Mr. Hay has not been so striking with me. It must be observed that most of the inhabitants of this District are addicted to drinking an infusion of the dried Heads of the Poppy from which Opium has not been extracted and perhaps my Patients have been accustomed to the influence of this Drug too much to have been materially affected by the dose I have given. My practice has been carried on under almost all possible disadvantages excepting those resulting from Moisture or Cold. My patients in general at first were of the lowest and most indigent classes and so insulated and neglected or poor as not to have the means of procuring food without small advances of money. I operated sometimes in the open air without shade sometimes in an open shed, or under a Tree, or in a Veranda or in my Tent and my Patients in some instances came twice a day in the Sun

59

whilst in others they absented themselves for two or three days yet altogether I was by no means dissatisfied with the general result though the repetition of the operation was more frequently required than I had conceived from the incidents attending it due allowance being made to the precautions I took to prevent secondary membranous Cataract. I conceive that there are many thousands of blind

people in this Country from the great numbers who applied with diseased eyes. The Heat and glare at this season are intense; the soil is light and sandy hurricanes are very frequent, the houses are very small ill aired and the population large. There are some Barber Surgeons who considering circumstances are not ill informed and one has cut for the Stone in the Gripe[?] with great success for many years. Several of them couch with a spear pointed Lancet of which about a quarter of an inch is bare and the rest of the blade tied round with a thread the eye is perforated at about two lines from the union of the Sclerotica with the Cornea and much below the angle of the lids. A Copper Needle either round or three sided is introduced into the eye through the wound made by the Lancet and pushed towards the top of the Cataract. It is then brought down close to the Iris and generally lodges the lens in the first attempt in the vitreous humor; but in eight operations out of ten it had failed and although it may be supposed to be in general more successful yet it is very inferior to the European

[60]

mode of couching and inflammation runs very high after its performance in so much that people with Cataracts are averse to its performance and my practice was circumscribed till I changed the name of the operation. When this was done, my instruments were acknowledged by my confreres to be superior to those employed by them and that my patients suffered little either during the operation or subsequently my practice increased daily and this day I have been obliged to reject several cases which will wait for my return. I took the precaution of placing my first Patient a Moosulman of property in one of the apartments of an Alms House of which I occupied the roof and I will follow the same practice at every large town where I may stop so that the operation may not be brought into discredit by the negligence of my Patients. Aware of the inutility of endeavoring to counteract the influence of the causes which produce inflammation of the eye and the subsequent degradation of its structure I conceived it might be of use to instruct some of the native practitioners in a better mode of combating the complaint in its first stage and to remedy in some degree its consequences when neglected. I have therefore engaged one of the Hakeems of the place to accompany me for some time that he may become acquainted with my practice and I have promised to instruct him how to perform the operation for the Cataract, to bear his

61

expenses and to set him up with Instruments.

Hydrocephalus--Yesterday a boy of three years of age was brought with this complaint. His head was of a natural size when born but at two months old it began to enlarge rapidly. The upper part of his head is very large, the face small, the body and limbs moderately fleshy. He cannot stand, or walk, or support his head which always lies on one shoulder or rests upon the person who supports him. He cannot Speak, but sees and hears and expresses pleasure by smiles and inarticulate short sounds like attempts at laughter. His Pupils are of the usual size, regular and similar and active. I applied my watch to his ear; he was surprized and pleased. He handled it and his countenance was much animated whilst he retained it. His head was not

measured as I was surrounded by many Patients and the Mother promised to bring him again. The bony Case was of great size and differed from all others I have seen in more of the Sutures having opened save the Fontanel which was about two inches in breadth and a little more in length. The Beard had sprung in each side of the face and was just darkening the upper lip. The parts of generation were extraordinarily large but the hair had not yet sprung from the Pubes. He appeared in good health and likely to live. Had I remained a few days I would have tapped his head through the nose.

[62]

Hoshearpoor

~~March~~ [April] 25 Ghaus Khan the person announced by Meer Izzut Oollah arrived from Umritsir and stated that he had signified the wish of Desa Singh that I should accompany him to Dilbagh Singh who desired a reference might be made to Lalla Shewdeal under whose immediate authority he acted. As Shewdeal was an inferior Officer to Desa Singh who has the general management of this Doab this reference seems to me merely a pretext for delaying until some orders shall have been received from the Raja. Ghaus Khan stated that Dilbagh Singh had represented his having seen only one of thirty two Chests in my possession in a manner that indicated his suspicion of their contents being of some improper and dangerous nature. I ordered the Khansaman to shew every article in our possession as previously exhibited to Dilbagh Singh.

~~March~~ [April] 26 --Ghaus Khan accompanied by Dilbagh Rae a writer and several Sikhs came to my Tent and intimated that they had received orders to treat me with every possible attention and Dilbagh Singh expressed his desire to provide me with accommodations more convenient than the residence I now occupied. On my arrival I had pitched my tent in a burying Ground and a Moosulman Fuqeer had given me permission to enjoy the shade of some Tamarinds planted over old tombs in our enclosure belonging to a Mosque of which he had charge. At the latter place I saw Patients and performed operations

63

and slept in the burying ground. Whilst I remained two bodies were interred within 20 yards of my Tent but the graves were deep and Jackals were kept at a distance by the presence of people. Dilbagh Singh desired I would take another situation as this was somewhat distant from the fort. A person to whom I had given medicine pointed out a Grove near the town in which there was a running stream and the shade of trees. To this however he objected and indicated an Hospice where travelling Fuqeers lodged. I went to see it and found it situated upon the bank of a dry broad sandy watercourse in which the female part of the population of Hosharpoor daily made offerings to Cloacina not a little repugnant to European notions of what is due to female decorum. The stench and heat were extreme and as the Brahmin who occupied the premises expressed his reluctance to admit Moosulmans I grounded upon this an unwillingness to disturb him. The next day however Dilbagh Singh insisted on my removing and I have been exposed on the terraced roof of the House in a Tent 9 feet square to a heat greater than I ever

experienced in Hindoostan without the means of cooling it, the Apartments below being crowded by my Servants. I should not have been able to resist the conjoint effects of the heat of the day and of the impure atmosphere had not the nights in general been cool and had I not restricted myself to an abstinence from animal food and to one dinner in three days

[64]

on the others taking only a breakfast, tea and sherbet. The nights have been however almost always broken by Northwesters by which I have been in danger of making a hasty visit into a weavers work yard over the roof which has no parapet. I told Dilbagh Singh that as the time I had to stay would be short I would not put him to the trouble of providing any other residence and that I proposed to prosecute the same kind of life that I had pursued since I had been in confinement until I should be finally and completely enlarged. Ghous Khan said he wished to see my property again along with Dilbagh Singh and his coadjuter Koorum Rae. This was accordingly done to the no small discomfiture of the assertions of Dilbagh Singh and apparently to the satisfaction of Ghous Khan. A Sikh who had been impertinently officious more than once said that he had heard Europeans had boxes which when opened discharged Balls that killed the persons who were then present and intimated his suspicions that my intended present for the Raja was of this description.

On this rascally surmise the Box was opened and displayed a small cannon not loaded.

~~March~~ [April] 28th -- Ghous Khan and his Mootsudder[?] with a Messenger from the Hakeem Uzeez ood Deen and Desa Singh and an Officer from Lalla Sewdeal came to me with a present of Sweetmeats and a [illeg.] of 220 Rs from the Raja Runjeet Singh

65

They were directed to obey my orders in every respect. It was strongly urged that it would be better if I would return but I signified my decided resolution to proceed. Koorum Singh desired I would accompany him and Dilbagh Singh into a small room in a Garden where I was then sitting surrounded by Patients but I declined acceding to the proposition as I had no secrets. Koorum Rae then said he hoped I would sign a Razeemundee signifying that I was satisfied with the treatment I had met with which I declined. After Koorum Rae and Dilbagh Singh had departed I signified to Ghous Khan that I was not disposed to make any representation to the Raja of the treatment I had experienced from Dilbagh Singh but that I would sign no papers. 29th -- Ghous Khan brings 2 letters from Desa Singh, the first signifying the consent of the Raja to my pursuing my route back through the Mountains, or to Umritsir as I should think best indicating the place in which I should be lodged and recommending me to the care of Desa Singh to prevent any attack from the Akhalee Phoolar Singh. The second intimated that he had ordered a guard of fifty soldiers to escort me to Umritsir and that he expected shortly to see me. A letter from Meer Izzut Oollah relates a meeting with Desa Singh and the desire of the latter to be informed whether I had any written document from the Gov<sup>r</sup> Gen<sup>l</sup> which was shewn to him.

[66]

29th Left Hoshearpoor in the evening and at Khwaspoor a village 1½ Kos distant was overtaken by the Thanahdar of Pholour who pressed me to sign an acknowledgement of being satisfied with the treatment I had met with, which I again declined.

Reached Musuralla a village belonging to Desa Singh where we encamped for the night outside of the [illeg.]. The country dry, sandy, unenclosed and the only Crops on the ground, Tobacco, Sugar cane and Wheat. The two former near villages or where water can be employed as there is not moisture enough generally in the ground to assure good produce without irrigation. The tobacco does not exceed 20 inches in height generally much lower, the crop thin and light but the grain though small well fed and of excellent quality. For the first time for near a month I have enjoyed breathing air unimpregnated with offensive smell. Direction W by S. Distance 5 Kos.

30th -- Koorum Rae the Tehseeldar of Hoshiarpoor had been ordered by the Raja to attend me but as he was now out of his District of no use and much out of spirits I dismissed him telling him that though I could not with propriety comply with his request to subscribe the acknowledgement which he again solicited I was not desirous that any one should suffer on my account and that I should not forget in respect to him that he advised Lalla Sewdeal to allow me to proceed. With this observation he seemed satisfied and took leave. After passing by several villages arrived at Halalpoor distance 7 Kos --Direction West.

67

April 30th -- The country of the same kind as that seen yesterday. The trees seen are several varieties of Mimosa Sissoo and Mulberry but no Mango Trees save a few near the town of Halalpoor. Encamped in a Moosulman burying ground outside of the town to which a great number of men resorted in the middle of the day to drink (Post) infusion of Poppy heads and in the evening to refresh themselves with an infusion of (Bhung) Hemp leaves (Subzee). Several seemed gay in a more than ordinary degree, others fell into reverie but none were particularly talkative or noisy or riotous. In the night Utr Singh arrived with a party of Soldiers to escort me to Umritsir and was soon followed by a Townsman of Hoshiarpoor who accused four of his party of robbing him on the road of several bundles containing property to a considerable amount. The Officer made it appear that his party could not have been the plunderers and offered to refer the matter to the Raja. The sufferer a Silversmith was with difficulty prevailed on to retire. The day has been almost suffocatingly hot and it was late before our baggage came up so that I was long exposed to the Sun and got a severe headache.

May 1st. Marched out one o'clock in the morning & reached Tulwundee a village 10 Kos distant direction W by 7 o'clock passing through the moderately large town of Kurturpoor in the Bazaar of which saw four Sikh Horsemen not belonging to our party and who answered the description of the persons who robbed the Silversmith. For the last two miles of our march the Country is low. Tulwundee is an insignificant village.

[68]

May 2nd -- Marched at a half past two in the Morning under the direction of Utr Singh towards Buerowal across a plain which for several Miles is little cultivated but serves for pasturage to the Cattle of several villages and at day light reach the left bank of the Beas River and find we have gone three Kos out of our way from the plain being intersected by many roads & from the loose directions given at villages. The Country appears rather less cultivated than that seen yesterday and the only crop on the ground is wheat. The bed of the River is here about a quarter of a Mile broad but the size of the Stream differs according as the banks are high or low. At our first meeting with it the current reached from bank to bank; the high water mark about 8 feet above the present level of the water, the rate of the flow about 3 miles an hour but lower down as the stream narrows its velocity increases without however exceeding 3½ miles an hour. The only water birds seen were small Gulls, the Lesser Shrike, and Sandpipers. The bed of the River consisted of fine white sand. After following the left bank for about a Kos in the town of Gungrawal where we take a ferry boat and drop down the Stream to Buerowal said to be three Kos distant passing by Julalabad on the right bank. This town seems to possess the largest edifices of which I have yet seen in the Punjab and was once the residence of Adeena Beg Khan a powerful Moosulman Chief. When Uhmed Shah

69

Ubdulee invaded Hindoostan Adena Beg thinking himself not able to resist him successfully retired to strong places in the Mountains but tired with the repeated visits of the Dooranee who each time levied contributions on his Country he hired an immense body of Murhuttus with which he defeated the invader with great loss. Uhmed Shah did not again enter Hindoostan till after the death of Udeena Beg Khan when joined by the Nuwab Wazeer Nujeeb Khan & the principal Moosulman Chiefs of Hindoostan he defeated the united forces of the Murhuttus under the command of the Bhon[sla] in the memorable battle of Paniput. Anecdote of Mudajee Sundera as illustrative of the superior bottom of the Toorkee Horses. Buerowal is a moderate sized walled town situated on the right bank of the River and belongs to Futteh Singh Aloowala who had given orders that a Teaful[?] should be presented to me and every possible attention shewn. The money and provisions I declined on the plea of Runjeet Singh having already done as much as was necessary but I desired the Moosulman Thanahdar to convey my acknowledgements to the Chief for his civility. I declined going into the Fort which I afterwards repented as my Tent did not come up till the evening and I sat under a tree exposed to a fierce storm for 7 hours. This place formed the end of Lord Lakes' march in pursuit of Holkar.

Surgical observations -- I operated on two eyes for Cataract in the same person, one was hard and particularly elastic, the other

[70]

broke under the Needle and half escaped into the anterior chambers although the Stramonium was not used to dilate the Pupil. Although a portion was lodged upon



the upper edge of the Iris and I wished to have dislodged it yet as the Patient shewed no signs of suffering from it and the atmosphere became suddenly much obscured I thought it best to let it remain as it were by a few filaments or fringes than risk injuring the Iris with the Needle which considering its unexpanded state and the low degree of light might have happened. Had I not performed the operation then it could not have been done.

May 3rd--March from Buerowal to Jindeala. Began our March at 3 am and reach Jindeala at 7. Direction W. Distance 10 Kos. Meeree Mull a Moonshee reached Buerowal in the morning and waited on me in the Evening to state that he had the orders of the Raja to attend me. This Evening Kutoob oo deen Khan with about eighty Horse arrived at Jindeala to escort me onwards and a Moonshee from the Brother of the Hakeem Uzeez oo deen with information that a Tent was prepared in the Garden of Kurum Singh and to desire that I would apprise Desa Singh and himself of my having reached Pind a town 3 kos from Umritser.

May 4th -- March from Jundeala to Umritsir. Left Jundeala at 3 and reached Umritsir at 7 in the Morning where I found a Tent ready in the Raja's Garden of Kurm Singh

71

a space of about ten Bigahs surrounded by a high brick Wall. Half of this space is laid out in an Orangery of which the trees are disposed in alleys. In the Evening the Killedar of the Fort of Govind Gurh Imam Uzzeez oo deen along with the Choudree and another respectable looking old Sikh came to pay me a visit and each brought a present of money--the former some Gold Mohurs on the part of Desa Singh who apologised for not coming as he was preparing for a journey to Lahor where we should meet. I refused all the Money except 217 Rs from the Raja which I could not avoid accepting according to the customs of the country. Nothing could be more abundant in expression of kindness than the Killadar who humbly stiles himself Fuqeer. In the night Desa Singh sent some Ice which however was useless as I was asleep when it arrived and it was melted in the Morning. He desired to have medicines for some complaints under which he labored.

May 5th -- March from Umritser to Buneawal.

Set off at 4 and after a march of 4½ hours through a flat country covered with low bushes and little cultivated reached Buneawal. The Killadar for every town has its Fort waited on me with a present of 50 Rs from Futteh Singh a Son of the Raja to whom the town belongs. I begged to decline taking the money but was obliged to allow of my Servants being fed this day at the expense of the Sahibzada as yesterday at that of the Hakim Uzzeez oo deen.

[72]

In the Evening I visited several Stables formerly belonging to Moosulman Chieftains but now containing 140 Horses belonging to the Raja. There were 4 Stallions attached to the Mares. One a grey Toorkee that appeared a clever substantial animal in good condition but I could not see his action as the Deroga said he would be very troublesome if taken out and a Mare was not given to him as he never left his Stand except for that purpose. The second was a tall strong, vicious[?] heavy headed coarse limbed Horse said to be from Kabool.

The 3rd was a common indifferent Horse in a state of exhaustion and the 4th a strong tolerably good Animal bred within 5 Kos. The foals are weaned at 6 months old if the Mare (Dam) appear in foal but if empty is allowed to suck till it be a twelvemonth old. The colts are then sent to Umritsir or Lahor and the Fillies given to Sepahees. There were from these 140 Mares 15 foals and the greater part was apparently empty. The foals were from 8 months downwards and wretchedly poor. They never left the Compound and some were tied to stakes. The Oldest had never had its feet pared[?] and the feet of the Mares and Stallions seemed never touched by the Knife in consequence of which alone the growth of the foot had become excessive and caused many of the Mares to give way in the back Sinews.

73

The Mares were in general of good size and common in their forms, but some of the best had lately come from Mooltan and these were in the best condition. In general and with the exception of a few Mares in one Stable[,] the Daroga of which was anxious to inform me that he had been in office only 8 months[,] and of a Stable of 14 lately arrived[,] the Mares were very poor and dirty. In the day time they remain in the Stable and at night in the hot weather they are taken out into the compound but in removing them the Hul[?] ropes remain attached to the legs and are trailed by the animal. This trait may suffice to give an idea of the Stable care.

If I have felt proud of the management of the Stud it is on a comparison of the appearance, number of produce and apparent difference of expense of the two Systems. The Mares are fed by contract the Duroga being allowed 8 anas a day for each horse or 15 Rs. a month !!

May 6th From Buneawal or Buneakee to Shalimar. Dir. W. dist. 12 kos.

Departed at 3 and reached the Garden of Shalimar at 9. The Country flat covered with bushes and not more than one twentieth part cultivated and that only in the immediate vicinity of villages. The Garden of Shalimar was made by that Magnificent Sovereign Shah Juhan and is said to include a hundred Bigahs within a high wall of brick and mortar of the best construction.

[74]

In the wall are many buildings of several Stories but the principal Mansions to which the Garden was an appendage are in ruins. The Garden is intersected by canals of Masonry and the walks are made of bricks laid edgewise. One has been broken by an Earthquake but the others are almost entire. In the middle of the Garden is a large square Basin of Water the edges of which are furnished with Copper Tubes for Jets d' Eau and a white marble Slope carved into a surface of leaves & shells divided into compartments by lines of black Marble is in perfect repair. Some open apartments of Marble of one Story on the level of the Basin presented to the view of the Monarch and his Courtiers a square Chamber of Marble with recesses in its sides from top to bottom for lamps before which water fell in sheets from a ledge of Marble running round the sides whilst Jets d' Eau played from the floor. This is called Sawun Bhadon as imitative of the light and heavy rains of these seasons. The ground is laid out in large Platforms and now covered with Fruit Trees and the water employed for it is brought by a canal from Shahjuhanpoor or as it is

commonly called Shoojanpoor a distance of 80 Kos. The Gateways are lined with Enamel China or Glass and the front towards the Garden are in a tolerable state of preservation. A large building consisting of three lines of arched apartments separated by Pillars from which the arches spring and which support

75

the roof is in perfect repair. The roof is painted al fresco in flowers. This edifice is about 100 feet in length and stands exactly in the center of the garden commanding a perfect view of the lake. The Garden is in the same plan as the Garden at Pinjor but the walls are higher and the buildings and Canals are on a larger scale although the garden is smaller.

Raja Runjeet Singh has built a single room in which I took up my abode and adjoining is a well with a Persian Wheel for the purpose of supplying water to a square containing jets d' eau so near to the chamber as to afford it some degree of coolness from the evaporation.

Under this room is a Tah khanna or cold apartment open on one side to the well and sunk below the level of the ground, but at present untenable from the offensive smell proceeding from the grass ropes which tie two carriages[?] of container pots to the outer circumference of the wheel. The fountain square is raised about 5 feet from the ground and surrounded by a low wall of masonry covered with good Plaster in imitation of Marble. The Platform of the Jets d' Eau is sunk about two feet below a walk of about five feet separating it from the exterior Wall and on the outside of an interior wall dividing the Platform from the walk is a Channel for water the edges of which are formed by sculptured white Marble foliage of different patterns pieced together and torn from a suite of splendid baths for which the present Sovereign of the Country

[76]

has no taste. Here and there is inserted into the walk a patch of white Marble with inlaid foliage and under a spout is a fine relic of Mosaic. The Single [illeg.] in the Hindoostanee style, the clumsy wooden wheels & apparatus for drawing water and the structure of the fountain square form altogether a curious contrast with the grand model on which the Garden and building are laid out. Here however the remains of the sculpture are for the present safe and one is a little reconciled to the barbarism which pillaged the baths by the fact that every Sikh who thought it worth while was allowed to tear up the marble Pavement and convert it into Lime! The Raja has replanted the Garden opened the aqueduct repaired some of the buildings and altogether prevented a noble relic from falling into utter ruin. Food was sent for my Servants by order of Runjeet Singh.

7th From Shalimar Bagh to the Baraderee Bagh -- Dir W -- Distance 3 Kos.

The second Brother of the Hakeem Uzzezz oo deen came early this morning to desire I would accompany him to another Garden nearer the Fort lately made in which was a small Bungla of three Stories. The Middle apartment was principally of wood panels of Filligree open work and small compartments of flowers birds and human figures the whole painted with great care and highly varnished. The cornice of ornaments like scrolls of Lapis Lazuli on a gold ground have a pleasing

effect. The ceiling was of a kind of mosaic of flower work embossed in small compartments intermixed with small Mirrors[?] and divided by gilt lattices, the whole neat & pretty. A fountain played on one side of an open Veranda that surrounded the apartment the outside of which was covered with decorations of green and gold. The roof encircled by a Screen of Cane Lattice served the purpose of a sleeping room in the hot weather. In the evening the Wuzeer Hakeem Uzzeez oodeen came himself from the Raja principally with a view to ascertain what sort of a person I was. Previously to his arrival Runjeet Singh sent two persons with a present of Sweetmeats and Money the latter of which I refused and caused a letter to be sent to the Raja along with it stating my reasons. Runjeet Singh said that the money now sent must be accepted but that after wards it should be as I pleased. The Sum was \_\_\_\_\_ Rupees. The Hakeem is a Man of about 35 of particularly pleasing manners and asked a considerable number of medical questions. In the night he made a report to the Raja of the nature of our conversation and stated his opinion of me.

8th May -- Lahor --

I am within a quarter of a mile of the walls of the Fort and some Horses are breaking in for artillery close to the edge of the garden. The Raja sent last night some baskets of flowers and this morning a small tray of yellow plums with some Melons; the former similar in form and appearance to those lately introduced into Hindoostan but more juicy and better flavored.

[78]

This Evening the Hakeem came to accompany me to the presence of the Raja. We proceeded to one of the western Gates of the Fort passed through the garden in which is the Jama Masjid or Great Mosque then up a long flight of brick Steps through a second gateway into a long Court, through another gateway and court to a third larger enclosure in which a number of Horses stood caparisoned and from this we entered a large Marble flagged court at the further side of which fronting us sat the Maharaja. In a large apartment open to the Court in a Chair covered with gold Plates. He rose on my approach and beckoned me to sit on a Chair covered with plates of Silver placed on a sheet of Gold Tissue opposite to him at the distance of about five yards. His Courtiers sat on the carpet in two lines so as to form a lane from the Raja to me and just before my feet was an artificial Lemon Tree. The Gateways were lined with guards but here were only two Matchlock men sitting on each side of the Raja. After the ordinary enquiries after health I returned thanks for the civilities I had received from him and expressed a hope that he would allow me to offer some trifling acknowledgment of the impression they had made. That not purposing to pay my respects to him I was not prepared with suitable presents but begged his acceptance of such as were at hand. These were a brace of Pistols by Nash with Stop Locks and Spring Bayonets, a pair of three barreled Pistols

One of Gills Swords a Model of a Cannon complete with Carriage, Ramrod &c. This piece of Ordnance was of the most beautiful workmanship made by Mr. Donnithorne, the Mint Master of Futtehgarh and perhaps for perfection of finish has seldom been exceeded and I had seen one of the 4 that Gentleman ceded to me at the cost price throw an Ounce ball with great exactness and strength to the distance of 200 yards. To these articles were added a few white Chouri Tails and Pods of Musk the present having cost me altogether about Rs 480 setting aside the Sword which was given to me. He examined the Pistols with attentiveness but was obviously most pleased with the Cannon and asked whether it might be fired. In expectation of this question or of its being put to the test of trial I had put up along with it a canister of Gunpowder and some Balls and my answer in the affirmative seemed to gratify him. After some conversation about Horses, he observed that the annual consumption of Horses in the British Army must be great perhaps 20,000. I replied generally that it was considerable and he then said he would shew me the Horses he had for his own use. Fifty Horses with rich Bridles, Saddles and Housings were then passed slowly in review over the Marble Pavement which was covered with water fetlock deep to give coolness to the apartments the floor of which was raised about two feet above the level of that of the Court. There was one grey Persian Horse that he said he had taken

[80]

from the Chief of Munkera instead of 7000 Rupees which Sum had been paid for him. I thought this animal very inferior to the greater number of those exhibited. The late Futteh Singh had given him a grey Horse which was was [sic] beautifully shaped every where except in the legs below the Knees and Hocks where he was too slight. He had cost 1700 Rs at Bokhara. The Horses consisted of the breed of Dhuranee, Ghep, the Lakhee Jungal, the Punjab, Rohtas the banks of the Attock and those of Bokhara. The Raja said that valuing much the latter he had put them to the Mares of his Country but that the experiment had not answered his expectations. This result does not surprise me if the same system be pursued with all his brood Mares and foals as is practised at Buneekkee. He further added that in battle his Sirdars preferred the Horses of Dhumme. I submitted that as being shorter than those of Bokhara they might turn in a smaller space and thus be more convenient in close combat. The Raja admitted the truth of this. I shall reserve my remarks on these Horses until I shall have seen the whole of those kept for the personal use of the Raja.

May 9th -- The Hakeem at 6 oclock came to say that the Raja was in a neighboring garden with Horses he wished to shew me. I found him sitting under a Simiana on the golden chair with a Bow in his hand surrounded by his Courtiers sitting on carpets but not attended by any armed Men who were stationed at the door of the outer Garden which enclosed a second.

81

The Raja now desired me to take the Silver Chair and caused fifty more Horses richly caparisoned to be mounted and exercised. The space was a Garden walk 12 feet broad; the Rider for one only was employed mounted each Horse as brought to

him sometimes walked a few paces but generally urged him at once into a short and high Gallop in which the forehead was greatly raised and the hind parts depressed, the fore action very high the hind low and quick. This was continued with great rapidity for a few yards when the Horse was suddenly turned on his haunches and the same movements repeated and sometimes broken by rapid side movements in most perfect obedience to the action of the body and of the hand. In putting four fifths of these Horses through this exercise one Horse alone put his foot over the edge of the walk and he was an old favorite of the Rajas and was foundered in his hind feet. I recognised only one of the Horses seen last night and understood them to be different ones which I believe as my memory is retentive of forms and colors. Not a single Horse neighed, nor was restive nor kicked nor bit nor was in the slightest degree vicious or attempted to move off the walk on which they stood and only one was unquiet when the Rider mounted, yet the Raja assured me that some had not been ridden for 4 months. The breeds were Persian, Bokharan, Dhumnee 3, Ghep, Rohtas, Punjabee, Herat 2 & Mooltan and the animals were received principally as presents. The Raja said that he gave his filly foals & mares to Zumeenders and paid

[82]

one third of the value of the yearling Colts to the breeders furnishing also horses. He shewed a Horse that he had just received from the Kueloor Raja. Capt. R\_\_\_ had made a sign that he should not give him but the inhabitants of the Mountains were not he remarked quick at understanding signs ([n]ishana) and he the Raja intimated when a military force was in the neighborhood that he wished to have him. I have too high opinion of the good sense of the Officer in question to think that he would interfere in a matter so trifling as the gift of a Horse from a Raja who though under British protection personally and in respect to the lands he possesses on one side of the Sutlej holds a large District on the other under the Maharaja. I likewise recollect a Horse shewn to me at Belaspoor as a gift from Runjeet Singh to the Raja of Kueloor. But the recital of the circumstance, though somewhat in an under tone directed to Meer Izzut Oollah and but imperfectly understood by me being principally in the Punjabee dialect is a proof of the rising pride of this Sovereign and of the gratification he experienced from his wish having been complied with in supposed opposition to the of the agent of another power. The vast accession of territory by the conquest of Kashmeer and Mooltan and the obedience of the Munkera and Bahawalpoor Chiefs leave Runjeet Singh with only one formidable Rival on this side of the Indus. It is impossible to say to what lengths his ambition may lead him but probabilities are greatly against his venturing

83

to try his strength with the British Power.

Understanding that the Raja is not dissatisfied with me I have thought it expedient to form an abstract of scheme for the admission of Commerce by British Merchants into the Raja's dominions & the transit of merchandize into other countries on payment of a duty of 2½ per cent on the Invoice price without disturbing the

packages. And this I have desired Meer Izzut Oollah to introduce through the Hakeem.

10th May -- I was desired by the Raja to see two Regiments of infantry he had formed on the model of the Company's Sipahes. They were in good line and neat dress and had got 6 six pounders brass--four drawn by Bullocks 2 by 6 Horses each. The men were Sikhs, Poorbees or from the eastern part of the Company's territories and Goorkhas. The former wore blue Turbands the two latter white Turbands. Their Arms were principally of English fabric. The Sikhs were in general tall well looking men, the Goorkhas low but muscular, the Poorbees of all descriptions. Having seen these Troops in line I was requested to go to the Palace where I found the Raja on the roof of a low building from which there was a good view of the Troops who fired very well. Of their evolutions I could form no idea as they were generally concealed by smoke but the hollow square or as it is called Kelabund Fort fashion seemed to [be] a favorite form. The Raja observed that he had adopted the Regiments about 8 years ago -- that to induce the Sikhs to enter them he was obliged to give Jagheers and very high pay. At present they were reconciled to the custom & had been in Kashmeer

84 [This is the page referred to in the transcribers' note above, which ends the Note on Elephantiasis.]

85

The Raja shewed this Corps to Futteh Khan the late Wuzeer of Kabool who said it looked well but that if his Swordsmen got into it he thought it would soon be cut up. On this being told to the Sepahes some one of them remarked that he had better make a trial and he would then be convinced of the impracticability of his Swordsmen breaking their ranks. Desa Singh who is said to be one of the best Sikh soldiers observed at Umritsir to Meer Izzut Oollah that all the conquests of the Sikhs had as yet been achieved by combat with the Sword and that he [had] not witnessed any instance in which Artillery or regular Infantry had been of use. The Raja however is attached to both and has ordered Guns to be cast after the model I gave to him. These however are not likely to be well executed if a conclusion can be made from the late attempts of Sikh Workmen. A Tolerably good Brass founder went from Delhi to Lahor expressly to cast Cannon but the old Workmen spoiled his Mould through jealousy just when he was preparing to fill it and I heard him explaining the matter to the Raja who directed him to make a second attempt which as far as may [be] concluded from what dropped from one of the best workmen will again be counteracted. The Raja might procure Cannon from England at a cheaper rate than he can make them at Lahor. Sometime ago he procured 500 Muskets from the Company which cost him 31 Rs apiece but he now makes them at 20. One of the Locks was shewn to me. The Lock was the strongest I have ever seen, requiring considerable

[86]

exertion to cock it and must disturb the aim of the Soldier and speedily destroy its flint although it seldom will misfire. I conceive that in quick firing the Lahor made Musket will be much less destructive than the Matchlock though it may be discharged oftener and it seems to me only to have the advantage over the latter in wet weather when it is difficult to keep the Matches lighted. There may be some disadvantage attending the latter which might be remedied by adapting the stock of the Musket and making some other alterations, but the ease with which it is discharged without disturbance of aim is a prodigious advantage. However I presume military men have already well weighed their comparative merits & would not have rejected the Matchlock without decided proof of its inferiority. Runjeet Singh said that his men were treated[?] without a stick ever being employed and that corporal punishment was inflicted only in instances of blood being shed in quarrels, of theft and of mutiny. For the two latter the hand or nose was cut off but the former was frequently commuted for forfeiture of pay. His pay is \_\_\_ Rs. per month to a private, \_\_\_ to a Naik, \_\_\_ to a Khildar and \_\_\_ to a Jumedar, and \_\_\_ to a Soobedar. He said that the Regiments were formed by a Naik who deserted from the Company's Service and to whom he gave the command. On his death he conferred the charge of one of them to his Son. Runjeet Singh observed that many

87

of the Sepahees I saw had just returned from a 3 months furlough and the rest were Bulleenteers (Volunteers) from other Regiments from the Army who attended him as his Guard [illeg.] the march from Mooltan. His Soldiers he asserted did not lose any part of these manual[?] exercise or other duties by absence from their Regiment returning as perfect as when they left it. The Goorkhas he observed were brave but their courage was troublesome and he considered them as not having coolness of temper sufficient to make them good soldiers. He seemed to be tolerably well acquainted with many of the Company's military regulations as for instance with the nature of Courts Martial but on the whole I would observe that he preferred in general his own arrangements. He remarked that he had no Commissariat or provision of Grain for the Soldiers and observed that in the campaign of Kashmeer three pounds of flour only were obtainable for a Rupee. I was a little surprized that he should have exhibited so striking a proof of want of consideration to the necessities of his Army in a Country [illeg.] to his own and which might in a protracted warfare in case[?] of disaster have led to its complete disorganization as in the Goorkha Army at Maloun but I abstained from remark as I could make none that was complimentary on this occasion

[88]

to his talents as a General or to his feelings as a man well knowing that the inhabitants of the Country must have been oppressed by the Soldiers in proportion to the difficulties and scarcity they experienced. The recital was intended to exhibit a view of the arduousness of the struggle and so to reflect merit on himself. This little effusion of vanity was punished by a remark of Izzut Oollah complimentary to the foresight and liberality of the British regulations. He said the gunpowder used in this Regiment cost him only twelve Rupees a Maund, that he made the Saltpetre at



Lahor and procured the Brimstone from Hindoostan. The Stalks of the Cotton plant were preferred by him to any other wood for Charcoal. Other Gunpowder he said cost only 7 Rupees a Maund. He enquired the price of the Gunpowder used in the British Army to which I observed that the manufacturing of this article was entrusted to Gentlemen of great ability who had no other charge but that I was ignorant of its cost. The Raja mentioned a charge of the Dooranee Cavalry against his infantry in which the former were repulsed with considerable loss and their leader \_\_\_\_\_ killed. After the review of the troops the Raja shewed me about 25 Horses the greater number from Bokhara. One not very good, had cost him 1300 Rupees for which sum he could get five Horses of Dhumnee Ghep. I observed that

89

that if they were equal in value to those of that District I had already seen in his possession and one of which was then before them they must be considered as Horses given and not sold. The conversation was then turned by the Raja to the report made by the Hakeem of a conversation between us on medical subjects and introduced his wish to know my sentiments as to his present state of health in respect particularly to his power of drinking strong Liquors which he had the desire to do, but from which he felt not the gratification experienced in former times. I replied that his health was a matter of too much consequence to be pronounced upon except upon a more accurate knowledge of circumstances than I was possessed of. He said that he had reported his state to Gen Ochterlony who had directed the Surgeon to send what he thought suited to it. That he had received some medicine but had not used it. In the evening attended an operation for the Cataract and [the Hakeem] reported the Raja's case more particularly and at my desire drew up a written statement of it. The Raja was desirous he said of having medicine which could be made up by me. He had desired me to look at the medicine and finding that one bottle contained Elixir of Vitriol to remove any suspicion that might possibly arise in a mind so strangely constructed as his appears to be I mixed ten Drops with a little water and drank

[90]

it off in the presence of the Hakeem.

The Raja sent word that I was at liberty to visit any part of Lahor in any way I pleased and that he wished to know what breed of Horse I preferred that he might give me one of that race. I returned my acknowledgement for the permission and intentionally[?] begged to decline accepting the Horse until my return from Bokhara.

11th -- Having examined the statement of the Hakeem it appeared to me that the Raja had had his digestive powers injured by some cause probably by too free indulgence in spirituous liquors but that it was necessary I should be made acquainted with other matters before I could venture to form an opinion upon his case. This morning 25 Horses more were sent to me but inferior in quality to those before seen. The Colts he had bred by a Persian Horse out of the Mares of the Punjab and which he considered as inferior to his own breed were also sent for inspection. One was a very smart well grown Animal, the other more common; both

were 15 hands high but defective in their fore legs yet as the defects were of different nature I think it most likely that they were derived from the Mares most of which are more or less faulty either in shape, proportion, or direction. The Raja said that the greater number of the Horses he had reserved were given to him by his tributaries and Zumeendars. He said that Horses were subject

91

to few diseases and I saw no complaints amongst those exercised that were either active or formidable. But two Puethans who formerly acted as Horse Brokers in the Dist Jalunder Dooab or that between the Sutlej and Beas said that Horses were occasionally attacked with Kumree but not frequently, but that Bursatee was rather common. The Horses bred in the Punjab in the Possession of the Raja were particularly large and strong, but it is obvious the he obtains all the best for in a body of about 70 which accompanied me from Jindeala to Shalimar there was only one really fine Horse belonging to a Puethan called Julal oodeen Khan. The Raja observed that sometimes he gave a village sometimes a Jagheer to the Zumeendar who brought him a very superior Animal. With such encouragement it is not to be wondered at that Runjeet Singh obtains very fine Horses for his own use. Indeed throughout this Country almost every Sikh farmer keeps a Horse and a brood Mare and although the Climate is drier than that of the Company's Bengal possessions yet I apprehend the difference in the number of Horses bred arises from the greater necessity for them produced by the confusion in which the Punjab has been for the last 70 years till lately when the Raja used measures of severity towards Thieves. Runjeet Singh through Meer Izzut Oollah

[92]

requested to know if I would buy some Horses for him to Bokhara to which I answered in the affirmative provided he would send his own agent to take charge of the Money, the Horses and the Accounts and also would shew me a Horse as a model to guide any choice selected from one of the Horses of Bokhara as then in his possession. This was agreed to and the Raja sent some pictures of the Horses he particularly admired and which were with the Army. I returned word that the Horses from which the pictures were taken might be very good ones but that from peculiarities in the drawings I much doubted their correctness and therefore should be glad to see a living model. The matter ended by my stating that if he wanted only one Horse he might take one from the String I hoped to bring down.

12th -- More Troops were exercised before the Garden House in which I was lodged and I was asked my opinion as to the differences between the evolution of this and of the former Corps. As in the first review the smoke concealed the manoeuvres of the Troops I availed myself of this circumstance to avoid giving an opinion and was spared remarking that if in action they fired as high as in practice not one ball in fifty would strike the enemy if he was farther removed than 20 yards from the fire.

Considering all circumstances however

93

Runjeet Singh has much merit in having brought these Troops to the degree of training they possess. I did not hear when old Muskets were condemned by him as unserviceable but in the first days exercise two burst and five men were hurt by various accidents. The hands of two were shattered but no provision is made for such cases although the individuals be crippled for life. To avoid the expense of woollen clothing and perhaps for other reasons and at the same time keep up an approach to the model each Soldier has a red cloth girdle which at a distance has a neat appearance. The Goorkhas and Poorbees have Turbans similar to those of the British Sepahees but the Sikhs adhere to Turbans of blue cotton cloth. A corps of Dromedaries with small Guns exercised along with the Sepahees but if the direction of their fire and the face of an enemy be similar to that practised on the parade they will be more formidable by noise and smoke than by the execution they will offer.

I had this evening an Audience of a more private nature and was desired to make such enquiries as I might think necessary to enable me to form an opinion as to the nature of the complaint under which he was slightly suffering. In consequence I felt his Pulse examined his Tongue and endeavored to ascertain if there existed any visceral

[94]

derangement of structure. Two Phials of Medicine were produced sent by the order of Gen Ochterlony and he requested that I would endeavor to ascertain their composition and whether they were suited to his present complaint of which inability to drink water cooled by Ice or Saltpetre and to drink spirituous liquors constituted the leading symptoms or at least that he more particularly wished to have recovered.

He spoke much of military matters and mentioned his having lost in a few hours 1900 men at the siege of Mooltan. This he attributed to an attempt of the Army to take the City by assault and escalade without a Leader. To the obvious question why the Troops were not suitably directed he mentioned his accidental absence at the camp at some distance and the sudden ardor of the Troops. He described the wall and the ditch and to my question why the gates were not blown open said that was done but the entrance of the Army was prevented by high Mounds of Earth behind them. On enquiring the extent of the wall and the relative force of the besieged and besiegers he said the wall was about a Kos or rather more, the defenders 3000 and the assailants about 25000. On expressing my surprize that so small a body should successfully for a long time man so great

95

a length of Wall in the face of a force so very superior in numbers and in Artillery He replied that the defenders were all of one caste Puethans and fought with one mind. That 5000 Bombs were thrown into the City and that it was many times on fire. I enquired how many of the brave defenders remained alive after the City was taken he replied about five hundred. Himmur Singh one of his favorite Courtiers seeing probably the drift of my question which was to ascertain whether the whole of the Garrison was put to the sword as reported instantly remarked that not one Soldier was killed after the surrender. Speaking of the wealth of the City the Raja said that it

was reported to amount to four Krores on which Himmud Singh observed that the Sikh Officers did not attempt to restrain the Soldiers from plundering on account of the opposition and the loss it had caused and the Raja stated that very little had come to his Share. But neither the Raja nor Himmud Singh mentioned the severe captivity to which the gallant but unfortunate Nuwab Surfuraz Khan is now subjected at Lahor.

13th -- Early this morning I had my audience of leave. The Raja was particularly familiar and speaking of Lord Lakes pursuit of Holkar mentioned that he wished to see the Sahib log against his doing which many of his Courtiers used arguments

[96]

amongst others that the very sight of them would be injurious to him. He disguised himself as a common Trooper and accompanied by a body of his Soldiers went to Mr. Metcalf's Tent and represented that curiosity had induced some Sikhs to come to see him and it was hoped that he would gratify them which Mr. Metcalf immediately did and discovered Runjeet Singh. After many expressions of kindness towards me and of friendship towards the Hon. Company I took my leave and received a dress of Shawls &c. valued at about 1000 Rs. He gave a dress of lesser value to Meer Izzut Oollah his Brother & Son and sent afterwards a pair of Gold Bracelets to the latter and fifty Rupees to the Hakeem who had accompanied me from Hoshiarpoor. He has declined acceding to my proposition regarding a fixed duty on British goods introduced into the Punjab and through it and referred the consideration of this and the future passage of Goods into Tataria to Gen Ochterlony. Having been apprised of this intention I told him that it appeared to me peculiarly proper and that I had written to the General respecting it on which he observed that he should first write to his Wakeel at Dehli and consult his Courtiers on their return from the Campaign. This consultation

97

consultation from an individual who scarcely ever consults anyone on a subject of importance is tantamount to a consideration of it postponed sine die. However as the matter has been introduced I shall endeavor to bring it under the notice of the Govt as soon as I shall have ascertained that there is likely to be a demand for British Manufactures. The Raja has consented to my passing through Mundee and Koolloo to Ludagh and in case of my finding it inexpedient to attempt reaching Bokhara from the upper extremity of Tibet has allowed me to pass through Kashmeer to Peshawer with 200 followers. He told me that the Dooranees had now become Thieves and had no regard for their reputation or their word. That in a treaty by which it was agreed that he should receive 50000 Rupees he did actually receive 30000 and two Moosulmans of Peshawer were put into his hands as hostages to guarantee the payment of the remainder. Dost Moohammed with whom the arrangement was made sent word that he might treat the pledges as he pleased he being resolved not to pay the Money. On which exclaimed Himmud Singh the Maharaja released the Sureties, gave them Dresses of honor and furnished them with money for their expenses home. I gave to this conduct the applause which was due to such an action. He has appointed Meeree

[98]

Mull to attend me to Koolloo and furnished written orders to the authorities of the Country to afford every facility I may require.

This Evening the Raja sent the Fuqeer Noor oo deen with an Elephant to accompany me to the City.

Lahor is now surrounded by a brick wall of about 30 feet high principally of ancient construction but repaired by Runjeet Singh. Its extent is about 3 Kos and a half and it joins on to the Fort. The latter is surrounded likewise by a high wall partly detached partly incorporated with high brick buildings. The northern foot of the Fort is bathed by a branch of the Ravee which at this season is fordable and not above 30 yards across. The Raja and his Court live in the Fort and in the audiences I have had only two have been at the same apartment. The buildings are of great height and formerly were of such magnificence as might well entitle the city to the epithet of "famed" Lahor. Shah Jahan that most splendid of Monarchs built the Fort surrounding some edifices constructed by his Father Juhangeer of whom Lahor was the most favored residence. The Palace called Sumund Brooj of many stories has been wholly faced from its Parapet to its foundation with Panels of Porcelain Enamel representing Processions of Men and Animals, Elephants & Men combating

99

many of which that have not been broken by mechanical violence are as perfect as they were when first affixed to the wall in splendor of color and polish of surface.

Several of the old buildings in ruins others throw into contempt the mean edifices erected by later possessors of the once magnificent structures. Raja Runjeet Singh has cleared away some of the ruins and patched some of the buildings but the reparations tend to deform the grandeur of the original designs. No Moosulman can forgive the degradation of the great Square and buildings of the Jamia Musjid into a place of exercise for Sepahee Infantry and no Englishman can approve of his having stripped the Dome of Azuf Jah the Brother of Noorjuhan Begum of its white Marble covering to convert it into some small and insignificant apartments in the Garden Court of the Mosque. This latter building is principally formed of a red Stone with pale spots which resists the weather unequally, in some portions unaltered in others falling into scales and powder. But in general this edifice as far as the Spectator can judge from the outside is but little injured though a few Stones have fallen from the upper Turrets of the Minarets. The Dewane Am is a large open Apartment supported

[100]

by many Pillars and the Marble Dais or Throne from which the Monarch issued his Decrees is in perfect order. On the platform in front are about twenty of Runjeet's favorite Horses. The Dewane Khas is separated from the large Hall by smaller apartments and is composed of a suite of rooms not particularly imposing either as to size or form and were it not that the reservoirs of water intended to cool them seem to join and correspond I should be disposed to think the Dewane Khas of a date subsequent to that of the other buildings. Although the view I have been

indulged in talking[?] of the Fort is perhaps more enlarged than that any other European has enjoyed in modern times save Gen Ochterlony & Mr. Metcalfe yet it is too limited to enable me to give a description of its interior but it seems to have been intended rather as a residence for the Sovereign and his Nobles than a place of defence to which object it would prove wholly inadequate against an European force suitably provided with Artillery. To the East and West it has no other defences than its wall and to the South it is separated from the City by a continuation of the Wall in which are several large gates. The wall in the whole of the extent I saw is pierced with Loopholes for Musquetry and seems to be little more than a mile in length.

101

Lahor is said once to have been 12 Kos in circumference but making allowances for eastern exaggeration which is generally excessive, the ruins of large Houses and Mosques now on the outside of the wall and at a considerable distance denote its population to have been much greater than it now is. From one part of the wall the only one I have seen on the outside I consider it as the original line and that the buildings at a distance were in the Suburbs. When Runjeet Singh had repaired the wall he surrounded it with a broad deep but dry Ditch and latterly has faced and lined it with brick works and pierced it with embrasures and loopholes. The sides of the former are too straight except for Ordnance of small calibre but they much multiplied [this sentence apparently sic]. Three thousand persons are now employed in completing it; and it is nearly finished. The masonry of the wall and Towers although it looks well at a distance from the small size of the Bricks is laid generally in earth and by no means of strong construction. The wall is so high and so near to the Ditch that its ruins would fall upon the defenders of the latter and help to fill up the Fosse.

The Raja has masked every Gate either with a brick or an earthen Redoubt but these are of an insufficient extent and would leave the entrance exposed to an oblique fire. I went through the whole of the Bazar which seems to follow the direction of the outer wall and generally to be separated from it only by a few Houses. The street is narrow and in this respect was imperfect originally but the defect is now increased by a low Platform that runs

[102]

along the front of the Houses and serves for the Tradesmen to exhibit their wares and this is defended from the Sun and Rain by Penthouses of Straw which as it would seem from the scorched appearance of the window frames frequently take fire through the lamps being hung close to them. A filthy deep Gutter runs along the middle of the Streets rendering it inconvenient and impedes through the stench which issues from it and if I may judge from the color of the Mud few Scavengers are employed in removing the nuisance. The Houses are all of brick and many of them five Stories. A considerable number is untenanted from their shattered state and notwithstanding the next Earthquake must bring down a large proportion to the certain destruction of the passengers and neighbors yet they are suffered to remain in a ruined & menacing condition. The lower apartments are tenanted by Tradesmen of various descriptions and the first story for a vast extent by women of

the Town who exhibit themselves at the windows. In general they are well dressed, have a profusion of Ornaments have good complexions but I saw none that would have been considered beautiful when compared with women of this class in Europe, although the manners of the former have in them nothing offensive to decency in regard to passengers whom however they salute by a Salaam yet this is conducted with an appearance of decorum. The Streets were crowded to a much greater degree than I have witnessed in any other Indian

103

City. The population consists of Moosulmans Hindoos and Sikhs but the former are most numerous and in their salutations to Strangers retain some vestiges of the polished state in which they were in the reigns of Juhangeer and Shah Juhan. They are for the most part reduced to indigence and the shabbiness of their clothing with a cast of features I considered as dejected formed a strong contrast with the gaudy apparel and cheerful countenances of the Sikhs. The Hindoos seem here more active than the same classes in Hindoostan. I saw no building of great extent or magnificence except the Mosque of the Nuwab Wuzeer Khan Soobudur of Lahor in the reign of \_\_\_\_\_. This is very large, its lofty Minarets are embellished with Enamel and its Gateways and Walls exhibit quotations from the Qoran in black letters of beautiful execution on White Marble. The Gateways and Squares were thronged with beggars but I was glad to see that Runjeet Singh had either relaxed in respect to allowing Moosulman observances or that the restrictions have been exaggerated or are confined to Umritser the Emporium of the teaching of his religious faith. This Sovereign is obviously more intent on increasing the extent of his dominions than on improving their produce or in augmenting the comforts of his subjects. His attention to the police seems to extend little farther than to keep his country in quiet and to prevent depredations

[104]

being made in an open manner or by thieves for if representations may be relied [on] his Officers especially those in the Revenue Department whilst they appear to pursue his forms of prescribed duty exercise in reality an oppression of which information can seldom reach him immersed in business as he continually is. For the Raja thinks that few persons can manage various kinds of business equally well with himself and is consequently so much taken up sometimes with details which ought to be left to others as not to have opportunity for hearing and redressing complaints. If I may judge from reports he has few men of considerable ability about his Court. Desa Singh the Governor of Umritser is said to possess more good sense and more military Talent than any other Courtier in his confidence and the Hakeem Uzeez oo deen seems by no means deficient either in general judgment or in the tactics of an oriental Court. This individual was originally a Barber Surgeon and in this capacity attended the Raja at the time Mr Metcalfe came to Lahor with propositions from the British Government. These were so disagreeable to him and to his Courtiers that all the latter recommended an appeal to the Sword except the Hakeem and another of the name of Purupteal[?]. These two persons formed the whole minority and their representations were construed by the indignant Chief

into obstinacy if not connected with a less pardonable cause. The Hakeem urged his reasons forcibly but with modesty and respect for the opinions of his Master.

[Moorcroft's text is interrupted here by the note on elephantiasis, and resumes without a break in sentence or meaning on p. 113]

113

Purupteal was less reserved and told the Raja that foreseeing as he did his utter ruin was inevitable if he went to war with the British power he would not cease to raise his voice against the measure unless he should actually strike him in which case having carried his opinion as far as was consistent with his duty as a Servant he should consult what was owing to himself as a Man and remain silent.

The Raja reconsidered the subject and adopted the pacific measures recommended by these two persons. He was so satisfied with what he had done afterwards as to treat Purupteal during the remainder of his life with the most marked attention. He soon[?] after raised the Hakeem to the Wuzeerat in addition to his duties as Physician in ordinary, gave to his Brother Noor oo deen the charge of the City of Lahor, the care of his Artillery and some other important duties. The third Brother Imam oo deen he has entrusted with the Office of Commander of Gobind Gurh a large and high Fort built about 12 years ago within half a Mile of the City of Umritser and in which the Raja has deposited the greatest part of his Treasure which is reputed to be immense. The three Brothers are all remarkable for the urbanity of their manners and each seems to possess a considerable degree of book learning. The civility of all of them could scarcely be exceeded, the Wuzeer generally calling on me twice a day and the Fuqeer Noor oo deen accompanying me through the City and being attentive on other occasions. Whilst going through the Bazar the Horse of a well dressed

[114]

Sikh who was advancing towards us frightened at the Elephant suddenly turned round and endeavored to run away. His rider corrected his attempt to gallop into some extraordinary bounds and turning him upon his hind legs forced him at full speed against the Elephant till the Horse almost touched his Trunk when the latter again went round. This was repeated three or four times and the Horseman exhibited a command over the Horse which would have proved him somewhat formidable to an European in single combat. After having forced the Elephant to turn once he succeeded in making the Horse pass though at great risk. I conceived that he might with impunity have cut off the Trunk of the Elephant but the Driver said that had he been so disposed he could have overturned the Horse and Rider and have made the Elephant crush the former. Considering the facility with which the Sikh might have passed I thought I never saw courage and horsemanship displayed to such little useful purpose, but there were many Spectators and he seemed to make forcing a passage a point of honor. In the evening of the 13th I delivered a written statement of my opinion regarding the complaints of the Raja to the Hakeem. I was induced to refer them to disordered digestive powers, and submitted a plan of treatment at some length of detail except in respect to his diet



with the nature of which I was not sufficiently acquainted to speak particularly and referred him to his own experience as well as to

115

the judgment of the Hakeem. The state of his bowels and that of his skin seemed primary objects of attention. Aloetic and Soap Pills were recommended to prevent costiveness[?] as I have seen this medicine in India even when long continued eventually induce regularity when there has been a torpor alternated with fits of too much activity of long standing without giving rise to those complaints frequently attributed to the use of Aloes. An infusion of the Gentian Cheureta rendered a little aromatic was directed to be taken early in the Morning and after his exercise on horseback some water acidulated with Sulphuric Acid. He was particularly subject to Deflexions on the nose and Throat referable perhaps to his habits of sitting on a floor covered with cold water and to exposure to the cold of the nights of this climate which lasting about six weeks is very great compared with the high temperature of the day. Shawl clothing of the finest texture with Silk Stockings was recommended for the warm season and Welsh flannel underdress with Lamb's Wool Stockings for the cold ones. As his complaints were always increased when he did not take long rides in the morning which business in the house prevented his doing occasionally it was submitted that he should substitute the gymnastic exercises of the natives. And as he had indulged too freely formerly in spirituous Liquors and had left them off he was directed to take Europe Wines and Liquors in small quantity at his meals avoiding intoxication

116

instead of the coarse fiery new Rum of the Country and distilled medicated Drinks. The quality of Brandy, Madeira, Port and Claret were explained to him, the seasons in which their use was most suitable. Gen Ochterlony had sent him formerly wines of various kinds and good advice as to their use. Moderation in the habits of eating Opium and Bhung was inculcated and it was most strongly recommended that he should endeavor to preserve his health by exercise and abstemiousness than to incur the danger of a serious complaint by pursuing an opposite system. He called a consultation of several Physicians on my letter and I was flattered by being told that they had highly approved both of the matter of the plan and of the manner in which it was arranged. He was particularly anxious to be soon enabled to take large Draughts of water cooled with Ice and to find a relish for spirituous liquors. He was also desirous to possess compound Prescriptions of Medicines and Recipes for making medicated Liquors. Having heard of the effects of some Doses of Calomel given to his Courtiers he requested to have all I could spare. He had received some Medicines from Delhi sent on his representation of his own case to Gen Ochterlony but not had taken any and put them into my hand that I should give an opinion respecting their suitability. Divising the motive [.....]

## On the Elephantiasis

The Elephantiasis of the Greeks, or Lepra of the Arabians, is one of the most common diseases of Hindostan, where however it is much misunderstood, as two distinct varieties; if not different diseases indiscriminately bear one Name, and what is worse are treated alike though they require opposite remedies. One variety exhibits the following Symptoms. One or two circumscribed patches appear upon the skin (generally of the feet or hands but sometimes the trunk or face) rather lighter colored than the neighbouring skin, neither raised nor depressed but shining and wrinkled, the furrows not coinciding with the lines of the contiguous sound cuticle. The skin thus circumscribed is so entirely insensible, that you may with hot irons burn to the muscle before the Patient feels any pain. These patches spread slowly until the skin of the whole of the legs, arms, and gradually often the whole body becomes alike devoid of sensation. Wherever it is so affected there is no perspiration; no itching; no pain and very seldom any swelling. Until this singular apathy has occupied the greater part of the skin, it may be rather considered a blemish than a disease; nevertheless it is most important to mark well these appearances, for they are the invariable commencement of one of the most gigantic and incurable diseases, that have succeeded the fall of man; and it is in this state chiefly (though not exclusively) that we are able to be the means of cure. The next Symptoms (which occur in some patients at 2 months while in others not till after 5 or 6 years) are the first which denote

111

internal disease or derangement of any functions. The pulse becomes very slow (from 50 to 60) not small but heavy "as if moving through mud." The bowels are very costive, the toes and fingers are benumbed, as with frost, glazed and rather swelled and nearly inflexible. The mind is at this time sluggish and slow in apprehension, and the Patient appears always half asleep. The soles of the feet and the palms of the hands then crack into fissures dry and hard as the parched soil[?] of the country and the extremities of the toes and fingers under the nails are encrusted with a furfuraceous substance, and the nails are gradually lifted up until absorption and ulceration occur, still there is little or not pain; the legs and forearms swell and the skin is everywhere cracked and rough. Contemporary with the last symptoms or very soon afterwards ulcers appear at the inside of the points of the toes and fingers directly under the last joint of the Metatarsal or Metacarpal bones or they corrode the thick sole under the joint of the os Calcies and os Caloides. There is no previous tumor, suppuration or pain but

apparently the simple absorption of the integuments which slough off in successive layers of about  $\frac{1}{2}$  an inch in diameter. A sanious discharge comes on, the muscle pale and flabby is in turn destroyed and the joint being penetrated, as by an Augre the extremity droops and at length falls an unresisting victim to the cruel, tardy, but certain poison. The wound then heals and other joints are attacked in succession whilst every revolving year bears with it a trophy of this slow march of Death. Thus are the limbs deprived one by one of their extremities till at last they become altogether useless. Even now death comes not to the relief of, nor is it desired by the Patient who "dying by inches and a spectacle of horror to all besides, still cherishes fondly the spark of life remaining and eats

[110]

voraciously all he can procure: he will sometimes crawl about with little but his trunk remaining, till old age comes on and at last he is carried off by Diarrhoea or Dysentery, which the enfeebled constitution has no Stamina to resist. Throughout the progress of this creeping, but inveterate complaint the health is not much disturbed, the food is eaten with appetite and properly, though slowly digested. A sleepy inertness overpowers every faculty and seems to benumb almost annihilate, every passion as well of the soul as of the body leaving only sufficient sense and activity to crawl through the routine of existence. This I consider as a distinct variety of Elephantiasis and from its most striking Symptom would name Elephantiasis Anaisthelos. It is probably the "baras" of Avicenna and is at its commencement called in India Soonbharry. I have never seen the larger joints attacked, the nose destroyed, or any other bones affected, save those of the hands and feet. The tuberculated species of Elephantiasis which I shall hereafter describe sometimes supervenes, but is by no means connected with, caused by, or necessarily subsequent to this disease. For the cure of this affliction our attention is first called to the state of the skin which is the primary affection, and if we are called in during the first stage we may always give a favorable prognosis. I have tried almost every thing that has formerly been recommended and very largely, but in vain. Bloodletting, Mercury, Antimony are singly of no use, but a happy combination of the two last with a medicine about to be described applying at the same time, topical Stimulants will generally succeed. Indeed I have frequently known the sensibility restored

109

entirely and the disease thereby checked by the application of a blister to the part and keeping it open for a few days. Whenever the foot or hand alone is affected I usually apply a strip of blistering plaster  $1\frac{1}{2}$  inch wide all round the limb just upon the line which marks the sound from the affected parts, Where this is inapplicable from the extent of the disease I apply a solution of Mercuriate of Mercury made as follows:

*Rj Hydrag. Muriate gr̄ viij  
 Acid. Muriate gr̄ xx Trit. in Vit. Mort. deinde adde  
 Spirit. Vin. Rect ʒss. Aqua Fontis ij M  
 This must be rubbed well upon the skin wherever affected. At the  
 same time give internally as follows viz (for an adult)  
 Rj Calomelanos gr̄ss. Pulv. Antim  
 Rj Pulv. Corticis radices Asclepias Gigantea gr̄ ij [ad x] ter die*

This last medicine which is not in our Pharmacoprias [appar. sic] requires some description. It was communicated to me in 1812 by a Mr. Halled as a discovery of Mr. L Playfair who afterward himself favored me with an account of it. I had hoped he would have given this to the world before now but as he has not I cannot refrain from here expressing how much I consider the profession and the World at large indebted to him for the discovery of the most valuable Medicine hitherto derived from the Vegetable Kingdom. Mr. P. emphatically describes it as a "vegetable Mercury" specific in the cure of "Lues Venerea. Leprosy and cutaneous eruptions in general" "the most powerful alterative hitherto known" and an excellent "Deobstruent" and thus proceeds "In all affections of the skin I have found it very effectual and in the Juzan[?] or "Leprosy of the Joints, Have never failed to clear up all the ulcers and often produced a perfect cure." In this last Complaint which untill the 3 last years I considered Leprosy, but which I now believe to be a species of Elephantiasis I am prepared to agree with

[108]

Mr. P. most fully as to the virtues of the Asclepias, called in Hindostan "Mudarrh." I can also bear witness to its powerful effects as a Deobstruent and Sudorific in almost all cutaneous eruptions arising from obstructed perspiration and an Apathy of the extreme Vessels. Its action is quick and decided, causing a sense of heat in the Stomach which rapidly pervades every part of the system and produces a titillating feel upon the skin from the renewed circulation through the minute vessels. It does not appear to be useful or indeed admissable where the affection is inflammatory or the eruption pustular. The great and rapid determination it causes to the skin has an obvious tendency to increase such diseases. I have tried it fairly in Lues venerea but cannot venture to recommend it as a substitute for Mercury; it will enable you to heal Chancre but does not eradicate the poison. In the secondary symptoms however it is an admirable Ally superceeding by its certain efficacy the exhibition of Mezereon, Sarsaparilla and other vegetables of doubtful utility. Where mercury has been used but cannot be pushed safely any further the Mudarrh rapidly recruits the Constitution,

heals the ulcers, removes the blotches from the skin and perfects the cure. The only part of the plant useful in medicine is the bark of the roots. It should be gathered in the months of March, April and May. The bark stripped from the root being well dried is readily beaten into a fine Powder of which the dose is from 3 to 10 grains thrice a day, for an adult 6 grs is enough to commence with. As the Plant grows wild every where throughout Hindostan it may be applied advantageously externally. I have often used a poultice made of equal parts of this Powder

107

and linseed dust with decided benefit in bad ulcers from whatever cause and even in gangrene. It acts as a detergent in cleansing the sore and powerfully stimulates the healthy granulations. Decoctions may also be employed where the Stomach would reject it in substance. When it causes pain in the Stomach a few grains of Magnesia or Kalippt added to each dose will prevent that effect. That this medicine is really the principal in the cure I can have no doubt for I scarcely ever succeeded by any means in curing or even checking the Disease before I employed it, and have scarcely ever failed of doing both since.

The 2nd Species of Elephantiasis I would denominate Etuberculata from the Symptom which always accompanies and forms the most striking character of the disease. It usually commences with patches of the cuticle of the face becoming more florid and as Doctor Adams admirably expresses it "appearing as if semitransparent--as if the surface were smeared with oil." It then gradually becomes thickened in different parts irregularly, giving a bloated and disgusting appearance to the visage. The [illeg.] of the nose are usually first attacked then the integument of the cheeks, temples and lips, and lastly the ears which I have often seen thrice the natural size, nor have I ever seen a case in which they were not affected. The disease in this stage sometimes affects the Skin of the Arms, Hands, neck and Chest, afterwards of the lower extremities and the lower part of the trunk. The skin is not insensible to the touch but on the contrary there is generally a sense of heat and great itching in the tuberculated parts which are circumscribed but most irregular. The symptom is followed after a long time by frequent headaches,

[106]

a great sense of appression and weight in the head and a lethargic state of the mind. The tubercles sometimes grow so large and are so numerous as to occupy almost the whole of the face and head and from their oily splendour they produce a most hideous effect. The pulse is slow and feeble the voice becomes hoarse and the mouth is generally absorbed without any perceptible ulceration. The os vomer is then destroyed, the nose flattened and after many years the bones of the palate and nose become carious. The disease now assumes the appearance of and is often mistaken for the Secondary Symptoms of Lues Venerea. It is in this species only of

Elephantiasis and in this only at its commencement that the Venereal passion is excessive probably occasioned by the stimulating irritation of the skin. In the after stage the Testicles are absorbed and if the disease comes on before, it prevents puberty. The fingers and toes do not (at least till a very late period) become at all numb or in any way useless except from the swelling of the skin. When in exertion the skin appears loose upon the body and shakes in the parts affected as it does in Anasarca. From the flabby fullness of the integuments the cheeks hang down the wrinkles of course deepen and the Patient looks very much older than he is. This disease like its relation is slow and very long in progress. I have at this moment a Dandee or Boatman in my Budgerow who has had many tubercles all over his body for above a year they increased, but except [sc.except]the irritation they occasion are productive of no diminution of his strength or health. He works as well as as long as the others,

105

bears exposure to the Sun as well and is not apparently weaker. When he is rowing (which they always do standing) the loose flabbiness of the skin where affected is particularly striking. The skin has lost none of its sensibility but on the contrary is itching constantly, his desires for venery are more ardent than before. His hair has not fallen off his eyebrows, Chin or Pubes, his Ears are twice as big as formerly. The Aloa of the nose are swelled, nostrils dilated, lips tumid and voice hoarse and obscure rather cracked as if arriving at puberty, though his is thirty years of age. Doctor Bateman gives the most accurate account of Elephantiasis of any author I have read and yet candidly says he has only seen 2 cases. He has separated as much as possible the confusion of writers, but still has necessarily mixed the two varieties which in this country at least we find distinct. The dropping of the extremities and insensibility of the Skin belong to the first. The tubercles of the skin ulceration of the Palate and affection of the Cartilages and bones of the face, to the 2nd Variety in the first the venereal passion is unaltered and I have seen many healthy Families of children spring from Father[s] with scarcely a finger or toe remaining, the hair[?] does not drop off from these. In the 2nd Variety or Elephantiasis tuberculata the Mudarrh does harm and is inadmissible. Arsenic in small doses is the most useful remedy I have yet found but the certain cure is a grand desideratum. This is equal to the first in longevity like that it does not affect the health for many many years and unless it attacks the bones of the face and palate it does not affect the life, nor does it produce the same stupifying effect upon the mind or body,

[84]

Occasionally you see the Patient overwhelmed with both at once but this is an exception to the rule. I have described the last species less minutely because it is so well laid down by Doctor Bateman with the exceptions I have stated. One symptom particularly which Doctor Bateman has not mentioned and which I have generally met with in the 2nd variety is an oblong glandular

swelling in the groin exactly in the course of the vessels. This is almost always present when the testes are wasting. The hair does not necessarily fall off the pubes nor does it for many years leave the eyebrows or chin of adults though the disease prevents its growth when puberty has not taken place.

For the first variety I consider Mudarrh (which aggravates the 2nd) as the sole effectual remedy.

The preceding observations were drawn up and put into my hand by my regretted friend Mr. Jas. Robinson lately deceased. He remarked at the time that more experience had chastened and subdued his expectations and confidence. That he thought it right to give his former opinions in their original shape and would immediately commit to paper his present sentiments on the subject of Lepra with his further experiments and experience for my use. He never was able to execute his intention and almost the last time he put pen to paper except in signing his will was to defend me from an attack in the public Papers in regard to an operation I had formerly performed and given up Since[?] which I had mentioned to him four years before it was laid before the Public as a new discovery by another Individual