## X.

> A Journey to Lake Mánasarobvara in $\boldsymbol{U}^{\boldsymbol{n}} \boldsymbol{n}$-des, a Province of little Tibet.

> By WILLIAM MOORCROFT, Esq,

INTRODUCTORY NOTE BY
H. T. COLEBROOKE, Esq.

IHAVE much gratification in being enabled to lay before the Society, an extract from the journal of our colleague, Mr. Moorcroft, on a journey to explore that part of little Tibet in Chinese Tartary, where the shawl goat is pastured; and to visit the celebrated lake Mannasarbvara or Mapang, in which the Ganges was long supposed to take its source.

Undertaken from motives of public zeal, to open to Great Britain means of obtaining the materials of the finest woollen fabric, the arduous and perilous enterprise in which Mr. Moorcroft, accompanied by Captain Hearsap, engaged, and which was prosecuted by them with indefatigable perseverance and admirable intrepidity, undismayed by the difficulties of the way and the


dangers with which the jealousy of the Nepalese beset them on their return, and undeterred by hardships and privations, and in Mr. Moorcroft's instance by frequent illness, has in the result not only accomplished the primary object which was in view, but has brought an interesting accession of knowledge of a country never before explored: and has ascertained the existence, and approximately determined the situation of Manasarbvara, verifying at the same time the fact, that it gives origin neither to the Ganges, nor to any other of the rivers reputed to flow from it. Mr. Moorcroft, as will be seen, found reason to believe that the lake has no outlet. His stay, however, was too short to allow of his making a complete circuit of it: and adverting to the difficulty of conceiving the evaporation of the lake's surface in so cold a climate to be equivalent to the influx of water in the season of thaw from the surrounding mountains, it may be conjectured, that, although no river run from it, nor any outlet appear at the level at which it was seen by Mr. Moorcroft, it may have some drain of its superfluous waters, when more swoln, and at its greatest elevation, and may then, perhaps, communicate with Rawan lake, (in which the Setlej takes its source) conformably with the oral information received by our travellers.

The journal of the entire route, from their departure from the British frontier in Rohilkhand, to their return, being more copious than would consist with the limits of the volume of our researches, I have used the liberty of selection, which Mr. Moorcroft has liberally allowed, and confined the extract of the journal to that part of the route which is wholly novel; at the same time curtailing the narrative, though with regret, for the unavoidable exclusion of many interesting passages. It is proper, however, to observe, that no other freedom has been used; and that the narrator's own words are scrupulously retained.

## JOURNAL.

May 26th.—At Jóshí-Mat'h we left the road to Bhadrinat'h; which crosses the Dauli a little more than a cos above the town. At the junction of the VishnuGangá with the Daulf, both rivers lose their names; and the united streams form the Alacanainda, the course of which has been before mentioned. As the road to Jóshi-Mat'h is known by the surveys of the gentemen deputed by Colonel Colebrooke, I have not been very particular in describing it *: but, as the road to Niti and onwaris is new ground to Europeans, I shall follow it with more exactness.

The principal part of the minutes of our route is taken from the note book of Mr. Hearsay, who carried the compass and brought up the rear, accompanied by Harkh Dev, and who engaged on setting out, to execute this part. Harkh Dev Pandit was directed to stride the whole of the road at paces equal to 4 feet each $\dagger$.

Our road lay along the left bank of the Daull, but generally at the distance of at least a cos. The road was pleasant, but the heat was greater than might have been expected, seeing that the summits of the mountains very near us were covered with snow.

The road was frequently crossed by small streams of water, of which several issue from stone conduits now out of repair. We saw people sowing the Lál Ság, or Amaranthus Gangeticus, a vegetable apparently much used by the mountaineers.

[^0]Wheat was nearly ready to cut, and lands under the plough. The ears of the wheat particularly long and bearded.

About a c6s before we reached the ground for encampment we met our carriers returning, who said that they had executed their task, but had received neither victuals nor money. It appears to me that the Chaudrí of Joshi Mat'h, who received our advances and undertook to supply the people, will keep the whole money for his own use, and press the unfortanate villagers to carry our baggage.

Some mountains near us, whose tops were covered with snow when we first came, were in the evening nearly bare.

At half past eleven reached the town of Baragaon; and not finding good shade went on higher, above three quarters of a mile, without being much more successful.

The cultivated lands, in the middle of which is the village of Baragaom, run half way up the hill, where the forest region begins with small trees, becoming thicker and higher as it ascends; and the very summit is fringed with pines, and the majestic and fine overtopping cedar*.

27th. -In the afternoon the Negi came to say that on the following morning he would have people to take our baggage to Tap6ban, a village about three cos distant, from whence we should proceed onwards the following day.

98th.-Resume our journey, leaving our ground at $6^{\text {b }} 30^{\prime}$ therm. sunrise $58^{\circ}$. Pass by a Sanga over the Daull, and at 3696 paces reach our ground, a little

[^1]below the almost deserted village of Tapoban, placed on the brow of a hill surmounted by woods of pine, cedar and cypress*. A considerable stream falls into the Daulf below the village; and by the side of this is a small rivulet of tepid water.-This current mixes with the cold stream before it reaches the.Daulk, and issues from some rough ground in the face of a rock. The heat of the water seemed to be very agreeable to tadpoles, which had deserted the colder stream to take refuge in this.

I observed a common plant something resembling butcher's-broom, which was said to be the Setbaruá, from which the mountaineers make a plaper that is sold at Sirinagar and Almora, and from thence finds its way into Hindústan, although not in large quantities.-The bankers employ it for their bills of exchange, or Húndis, in preference to any other kind, as the ink does not sink further into its substance than is necessary to retain the writing, as it does not imbibe water readily, and relatively to its thickness is much stronger than any other kind of paper. As connected with paper, I must here observe, that the layers of the bark of birch are used by the natives to write upon, and they bear both ink and the stroke of the pencil very well. The leaves are called Bhoj-patr. The bark of the birch is used at Lac'knaus for covering the wires of huka-snakes.

29th. -Settle to give Jowar Sinh 26 rupees, in full of all taxes and demands to be made upon us until we reach the frontier; for which he gave a receipt on birch paper: having previously put aside a fee of five rupees for the part he bore in the transaction. As our carriers came in a very straggling manner from the villages whence they had been pressed, we could not leave the ground till 8. At 6816 paces reach a hut taken pos-

[^2]session of by our servants. This is computed to be seven cós from Tapobban.

After having reached the top of the first mountain, Mr. Hearsay, who had gone before me, killed a very thin yellow snake, about 18 inches in length. I found it had the poisonous fang, but it is asserted that snakes, and all other venomous reptiles, are very scarce in this part of the country. However, on taking up the carpet on which I had slept, a black scorpion came from under it.

A warm spring, which we passed early in this day's march, issues from the rock on the right of the road in a stream of about five inches across, and three deep, and threw upa small cloud of steam. At its escape the heat was so great that the finger could not bear being dipped in it more than 2 or 3 seconds. The thermometer having been carried forwards, we were prevented from ascertaining the temperature: however no insects were in it or about it, and some plants which had fallen into it near the middle of the current, were killed and seemed parboiled. The pebbles in its bed, and the vegetable substances which were immersed in it, were covered with a yellow coat, and those which had been taken out and become dry, were likewise coated with a white earthy substance, having little taste : however, the water itself was slightly austere, and I apprehend contained iron without any other mixture. The tepid stream at Tapbban, which is much lower, and not half a mile distant, probably proceeds from the same source with this, and is cooled in its progress to the place at which it escapes below. I saw no appearance of volcano in this or any other mountain which I have yet met with ; but many abound with minerals; and pyrites is found in great abundance.

Close to this place the road was broken by a recent
slip, and we had to pass upon the crumbling surface. The road this day was in many parts very fatiguing. In one place a slip of earth had laid bare a large surface of rock, which had been formerly covered by the road; and as it sloped to the river with a sharp descent, it required every exertion and care to guard against a slip of about a hundred feet into a current, which dashed with great force amongst fragments of marble, which in two or three points actually formed a bridge across the stream.-In another part we were obliged to climb ap the face of a rock nearly perpendicular, and on which irregularities, for the toe to hang upon, were at a most incouvenient distance. My left foot having slipped off one of them, I lay for a few seconds upon the poise, but a snatch at a clump of grass, which on being seized, luckily did not give way, and a sudden spring, brought me to a comparatively safe spot, with the loss of some skin from my knees and elbows, and some rents in ny trowsers and sleeves.-Sometimes points of rock projected to the edge of the river, and these were turned by rude staircases made of wood and stone.-Retiring angles were passed by inclined planes formed by a tree being laid on points of stone on each side of the angle, and loose stones were thrown from the wood to the rock. For a moment the eye could not quit the road and suffer the feet to proceed, without risk of accidents; and yet a trifling expense would render the road in general passable, although it would always be liable to be injured by the falling of the rocks above.

When we had reached the custom-house, on the middle of the mountain immediately beyond a Sanga by which we crossed the Rauni, we found one of our sircars who was detained by three men and as many women, as pledge for the payment of duties on the passage of our baggage. The receipt written upon a slip of birch bark was no sooner beheld by the most riotous of the men than he ceased to attempt any further molestation, although
it was clear that he had not read its contents.-As however one fellow was still a little impertinent, my friend insisted upon his relieving a carrier from his load, which he actually took part of the way up the hill ; and then slipping from under the load slid down a face of rock, and, though old, skipped away from point to point of a rough road with the agility of a deer. As many loads were left behind, it was deemed prudent to take the third man along with us as an hostage for their safe passage. As he went along, he told us that the Chaudrí Calyan, had farmed the customs of this place for 500 rupees a year ; and that the woman, who was so clamorous, was one of his wives, of whom he had seventeen. The other two women were her slaves.

To a poor woman, who had much difficulty in carrying her burden over a very rough road, I gave a Timasha, which in a few minutes was taken away from her by a man whom I supposed to be her husband. On learning that he was no relation, I got it from him, sent him about his business, and returned the coin to the woman; but when she departed, I had the mortification of observing him at a considerable distance start from a place of concealment and again force the money from her. This man was a Zemindar of the village in which the poor woman lived, and though he had been obliged by the Négé to carry a load, he still exercised his petty tyranny over one more defenceless than himself.

The gratification of the calls of hunger seems to be the first object amongst the inhabitants of a country, which, if under a well regulated government, would be capable of exporting a surplus of provisions. At Tapobbar, a stout young fellow offered himself to be my slave for life if I would only feed him. Although I wanted not his services, and did not much like his appearance, yet his appeal was too forcible to be resisted ; and I, therefore, engaged to give him food for his services.

30th.-Obliged to halt for the purpose of collecting carriers, which was difficult, as the villages in this part of the country are small and distant from each other.

31st.-As this day my companion and myself separated, and he had along with him the compass, and the young Pandit who measured the road, I shall make extracts from his notes of the route, and afterwards notice my deviation from it. 'At 1381 paces; tops of moun-- tains covered with snow in every direction. At 2297, - cross a rivulet which comes from E.-Snowy mountains 6 in that direction quite close. At 2437, commence ' ascending the most tremendous place I ever saw. At - 2783, descend to the bed of Daull river, most thankful - that I am once more safe :-I was obliged to take off ' shoes and stockings. At 7610, reach our halting ' place. Ten hours upon the march. The coolies, - mostly women, arrived at the same time. The Dauli ' much reduced in breadth; but the current very strong: ' with a small exception, its general course has been to ' the S.W.'

I left our ground at 40 minutes past 5.-From the bridges across the Dauli, having been swept away last year, and not reinstated, a new road has been made by the goat-herds along the sides and over the tops of the mountains which overlook the river. This has been first worked into a track by the goats, and in the worst places strengthened by fragments of stones thrown in heaps somewhat imitating rude flights of steps. The path in various places formed by pieces of stone which jut out, overhangs the edge of the water, and seldom retires so far from it as to give a chance of the traveller escaping from rolling down to the river, should he have the misfortune to make a false step; and the footing was very insecure from small stones being mixed with much loose earth.-Just on attaining the summit I met a large flock of goats loaded, and was glad to find a secure corner
until the whole had passed. I observed, that goats when laden climb up places however apparently difficult without hesitation ; but they do not like to go down steep declivities: for whether they descend straight down or sideways, the load urges them forward quicker than they like, and as there is no belly-band, it frequently tumbles off, and is the cause of the animal being carried down the steep sides of hills and lost.-Goats cast a look of inquiry at strangers, and pass on leisurely; but sheep generally stop, and, after one has either been driven onwards or gone of his own accord, the rest follow with precipitancy, and frequently lose their loads by their hurry.

Crossing this mountain took up an hour and a quarter. Having mounted a height, which, though short, was steep and rugged, I was somewhat confounded by the sight of a steep and bare slope of stone, about 100 feet deep, running to the bed of the river without any path, and with a surface so smooth as to excite a doubt whether I could reach the bottom in any other way than by sliding, which would have been too rapid to be safe: the more especially as the stop must have taken place amongst stones in the bed of the river. By taking off my stockings, pressing the spike of my staff into little dips in the stone, and catching at a friendly tuft of grass which occasionally presented itself near one edge, I got to the base nearly at the same time with the old Pandit, whose activity would have more surprised me had I not known that he had been bred in the mountains of Kamaon. Just as we had congratulated ourselves on our escape, we saw two other paths, one higher up and another lower down under a ledge of the rock, which saved the rest of our party, save two of the Pandit's hill people, from the dangers of this road.

Soon after descending the slope, I overtook a woman who had been pressed by the Negi to carry a load.

She said that her measure of misery was fall, and that she was resolved to emigrate into Jawár, where oppression was not so grievous as here.

Seeing our carriers who had started about threequarters of an hour before me, supporting themselves on the ledge of a rock, which overhung the river at a great height, by clinging with their hands to the stones on the face of the mountain, and that at length they actually stopped, I was induced to make the experiment of going round by a winding path, under an idea that I should effect it in nearly as little time, as would be spent in passing over the broken path of rock. Mr. Hearsay coming after me, and finding that the carriers preferred the short, but more dangerous road, to the long one, resolved to attempt it ; and assuredly I should have done the same, had I known the length and roughness of that which I actually took. Mr. Hearsay and a large portion of the carriers went over the rock without accident: but at one point the courage of my hhansaman failed; for, on missing footing with one leg, he shrieked violently and sunk down almost senseless upon a point of stone with one leg hanging down over the abyss, calling out that he was lost. Mr. Hearsay was at hand and assisted him most opportunely, along with the Pandit.One woman carried four burdens at different times for her less courageous companions; and a bearer was also of some use; but at length became so alarmed as only to be capable of proceeding by being steadied by an end of his turban being tied round his waist, and the other end secured by the young Pandit as he proceeded in front.

The horrors of this road were very great, and ought so to have been to justify passing. by such a road as that which I followed. For it cost me the labour of two hours to attain the top of the first mountain which I had to scale, and although the path consisted of lines of zig-
zag, not more than 10 or 12 feet in length, at angles so sharp, that in a length of 24 feet, not more than 10 feet were gained in actual ascent, yet even this progress was not made except by clinging with the hands to shrubs, roots of trees, clumps of grass, and clods of earth; and sometimes from the obliquity of the path, required me to creep on hands and knees to prevent slipping. Near the summit of the mountain, the path divided; and a mountxineer, whom we met, as we thought opportunely, at this point, advised the lower one ; though from the accounts of porters and servants who took the upper one, the latter was easier but a little longer.

In descending the mountain a grand view opened from the S.E., consisting of a vista formed by two sides of mountains composing a glen, down which ran a large stream.-One slope was enriched by a forest which reached to the clouds; the other covered by scanty pasturage for about 400 yards; when it was overhung by a steep face of barren rock of immense height, and the upper part of the vale was shut up by a peak of still higher mountain, the base of which was sprinkled with cypress, and the top whitened with snow.

After a tedious march of two hours more, through a forest of cedars and cypress ${ }^{*}$, of which many would have been large enough for main-masts of first rates, I came to a Sanga across the stream which ran down the valley. From this point I ascended the hill surmounted by the bare sheet of rock, by a goat path, and had to cross an avalanche which was scarcely settled; every now and then a piece of stone rolling down its face and bringing with it currents of earth. The path was narrow, occasionally going over a surface a little rounded, which, in some slight degree masked the tremendous declivity below, and sometimes skirting its very verge. At one spot,

[^3]Digitized by GOOgle
on a ledge of rock, the old Pandit hesitated and retired into a hollow. However, having the advance, he summoned up courage, and passed the cause of his fears; this was formed by an angular piece of rock having slipped out of the ledge or cornice on which we were walking ; and a piece of stone, which just, and only just, rested with both ends on the opposite edges of the gap, shewed a precipice of a depth sufficient to alarm the anxiety of a person who had not been much accustomed to the mountainous paths of this country. After clambering over fragments of stone which had fallen from the heights, we came to a point of rock, whence we had a complete view of the declivity over which we had to pass; and this part was to me more difficult than any other. However I reached the bottom of the hill without injury. I learnt that I had gone 4 cbs , and had not made above half a mile of head way. From the fatigue of this detour, I was so enfeebled as to be under the necessity of halting five or six times in ascending a steep mountain, and obliged to creep on my hands and knees for a great distance, not having sufficient confidence in my legs. My knees tottered, and I was frequently attacked with such a violent pain in the right knee, as for a second or two almost deprived me of the use of the limb. I much suspect that I had lost my road. In creeping along I certainly made a wrong choice, as I found myself at once upon the brink of a precipice, on the very angle of a rock which overhung it, and a slit in the stone shewed me my danger at the very moment I was about to place my hand upon a fragment which the weight would probably have dislodged, and carried me along with it; at this moment the recollection of the danger produces an involuntary shiver.-After some time I got into a tolerably good path, and found mycompanion, and the greatest part of the party, waiting my arrival by the side of a cool stream of excellent water.

The latter part of our march was not good : but this
road, although almost every where else it would have been deemed impassable except for goats, was good in comparison with that which constituted the labour of the morning.-This has certainly been the most severe day's work we have had ; and yet I compute the actual distance, including the. 4 c6s of detour, cannot have exceeding 13 c6s.

The ordinary road is not particularly difficult or dangerous; and all the risk of life which I have mentioned, inconvenience to the inhabitants of the country, and impediment to commerce, are created for want of Sangas which might be made for 100 rupees: but the present government does nothing to ameliorate the state of the country, or to increase the happiness of its subjects in these districts.

June 1st.-Commenced our march at 7-s0. At 2945 paces the river becomes a succession of rapids, and has its channel diminished to about 20 yards in breadth. At 5407 paces we pass two caves, a small and a large one. The Dauli about eighteen yards broad. At 10,971 paces come to some cedars" and halt. The Dauli much reduced.

At our place of encampment, a black scorpion was brought, and was said to be harmless : 'however on pulling off his sting and pressing it, a large drop of a thin milk-coloured fluid escaped from its point.

On the top of a high mountain, thinly sprinkled with worm-wood, dwarf cypresses*, and a kind of furze, blocks of marble and hard stones were scattered about in every direction, which seemed to contain minerals; and I am much deceived, if I did not see some veins of

[^4]silver* in strata of quartz. I had no instruments to break stones with, nor did I see any small fragments which I could with convenience place in my girdle. I was obliged therefore rather to leave this point unsettled, than to expose myself to the suspicion of coming into the country in search of precious metals. The surfaces of many of the hardest stones, on this side of the Paie-kande, are studded with small red crystals, which project ; at first view, one is disposed to take them for garnets; but they are not transparent. They are so firmly imbedded in the substance of the sto ne which serves as matrix to them, that they cannot be raised by any common instrument in a perfect state, so that I could not count their faces.

The scenery of this day has always been wild, and in some places most imposingly majestic ; especially from the side of the mountain where we halted. On every side the view is bounded by summits of mountains peaked, rounded, broken into ascending and descending lines, with abrupt ragged dips, and a few soft hollow sweeps, but all covered with snow. The declivities in some parts thickly covered with cedars and cypresses $\dagger$, in others thinly sprinkled, and in others diversified by bare patches of rock or sand. The base of two lines of mountains is washed by the Dault, which runs with great rapidity and noise, about 400 feet below our encampment, in a space only just large enough to receive the water which it now rolls along the channel. One slope of the hill immediately before us has been broken from top to bottom by a slip which has only lately happened. In its course it has overwhelmed large trees, of which some have been hurried into the river, others lay across its bed half buried in rubbish ; and others, thrown down, hang by their roots with their heads towards the base of the mountain. The devastation committed by large slips, is sometimes very

[^5]great, and they frequently happen : for I have this instant heard a tremendous crash at a distance produced by a fall of rock, and was awakened by another at a moment that I had lost all sense of fatigue under the shade of a large mass of stone.

When the structure of the exposed faces of mountains has not been entirely broken, I have remarked, that the general direction of the component layers has been to the E. of N. with an imclination towards the horizon about the angle of $45^{\circ}$.

We pitched in an open space between two ranges of high rocks. At the foot were some large cedars*. I measured one at six feet from the ground, twenty-two feet in circumference.

This evening the report ran, that a carrier had fallen off the first Sankho in this day's march, into the river, with his load, and was drowned.

June 2d.-March at six with the same coolies. In one place the river is covered by masses of rock, under which the current rushes with great violence. At 350 paces we cross to the left bank of the river over a Sankho, consisting of three parts, in consequence of two blocks of stone having fallen into the stream and formed three channels. It was in good order and thirty paces in length. At 4680 paces cross a broad large brook, in which there are large beds of frozen snow, with a stream of water running beneath them; and immediately on the right bank of which is the village of Malári.

The road of to-day has exhibited much variety ; and a short account of its features will convey a general idea of those of this country. At first we passed over heaps

[^6]of fragments of rocks; afterwards over beds of pebbles; then ascended a mountain partly by a path worn in the earth by frequent treading, and partly formed by the surface of rocks and by stairs: where the road on the face of the rock shelved much to the river, a few loose stones were laid upon it close to its edge; and sometimes earth was thrown amongst them, or a few pine branches were placed along it and loaded with stones: this served as a kind of defence or parapet : but, as they were never higher than a foot from the level of the shelf, they would only stop a slip of the foot. Where niches were broken out of the rock in the line of the path, and formed gaps over the precipice, if only of small extent, a piece of wood was laid across the widest part, and slabs of such stone as was at hand laid from it to the rock, either supported by a ledge, or if the face of the rock chanced to be smooth, on another spar of wood. - Where the gap was very wide, the trunk of a large tree was put across; the upper side being cut a little flat, or else having notches hewn in it as stepping places; an open space being left between it and the wall. Commonly these trees or Sankhos over chasms, as well as those Sankhos across rivers, are tolerably well guarded against turning, either by being weighted with large stones at each end, or by having rude stone wedges driven through two holes at each extremity of the trunk or plank.-Where the chasm is too long for a tree, a heap of flattish stones is placed in the nearest part, which affords room for the base of a flight of steps, constructed sometimes of stones wholly, sometimes of stones supported in front by logs of wood : but no railing is to be met with any where; and from the general looseness of the mode of building, these roads are subject soon to get out of order; but, if the stones be large and the base flat, this kind of stair lasts longer than might be expected, as the passengers walk with care. Slips from the hills do most mischief to them, and their course being almost always at the foot or on the side of mountains, exposes them to constant injury in some part of their extent.

To-day I had just crossed the slope of a slip that had happened last night; when I heard a little trickling above, which rapidly increased, and was caused by a shower of small stones, of which some slid easily over the surface of the falling earth, but others, having got a little momentum by rolling over perpendicular breaks, dashed down with such force, as would have been fatal to any animal which they might have chanced to strike in their fall.

As Mr. Hearsay was following the coolies, three bears, which were scampering up a steep gulley, that had been a water-course, but was now half filled by sand, earth and stones, displaced stones ahout 300 feet above the road. These in their descent loosened others, and dashed across the road while the coolies were passing, but fortunately struck no one, except one of my bearers upon the leg, and he was more alarmed than hurt.

The view of the village of Malari from the top of the hill, where it comes in sight at a distance of about a mile, is pleasing, and would give a good effect on canvass. It is placed in the eastern angle of a triangular plain about a mile on each face, and bounded on two sides by streams, and on the other by steep hills, covered up to their summits with a bed of snow, thin on the projecting parts, and deep in the ravines. The southern stream is half choked by banks of frozen snow, through which a mountain current, formed by spring-water and melted snow, forces its way, undermining the masses of congealed snow, which now impede its progress; but which in two months will be dissolved and carried into the Daull that runs with impetuosity from the north to the west.

The extremely neat state of the land recently sown principally with Chéná", and separated into fields by

[^7]recently piled stone fences and living hedges, would do credit to any country; but the proportion of cultivated to uncultivated land in this country, at present, is almost as a drop of water to a large river.

The village of Malárí consists of about 20 houses, built of rough stones, cemented with clay, and mixed with much wood. Many are of one story, but more of two, and some even of three stories. The lower range is generally given to the cattle. Circular stones, with holes through the middle of them, are hung by ropes to the projecting ends of the beams at the gables, to prevent the roof being injured by gusts of wind which are here frequent and violent. The upper story projects generally beyond the lower one, in consequence of its being furnished with a wooden verandah, which commonly runs along both sides, and is made of fir plank in strong pannels, ornamented with flowers and figures of Hindu deities, amongst which Gane'sa is most frequently represented. There is no lock, bolt, or latch to the doors, but in one door-post a square hole is cut, through which a rope is past, that ties a dog to it, who guards the entry with fidelity. His collar is of wood like a yoke collar, and a stick is tied to it, and likewise to the rope which holds him to the door.

Málart is inhabited by a class of people who call themselves Rajpút, but appear to pay little attention to caste. The poorer class of inhabitants of the frontier eat raw meat with a little pepper and salt as seasoning; which we had an opportunity of seeing; for the leg of a goat being thrown away in consequence of being tainted, the coolies instantly seized it, 'and made apparently a savoury meal from it. Both men and women are rather of low stature, but not ill made, and have something of the Tartar countenance mixed with that of the Hindu.

They dress in coarse woollen cloth made from the
fleece of their own sheep, and of those of Butdan. The women alone weave, sitting on the ground, and are very industrious and expert. In five days, with a very simple apparatus, a woman will weave a piece of cloth about 18 inches broad and 15 cubits long. This is called a Pankhi. Some of them are flat, but others are twilled and very strong. They are worn without being bleached or dyed. The proportion of females seems much greater than the males. This may be accounted for by part of the male population being taken by the Nepalese for their army, and by another part being engaged in going from the upper to the lower hilly district, to sell salt and bring back grain. The dress of both men and women is generally over-run with lice; and their persons are, with few exceptions, disgustingly filthy. The inside of the house is no less filthy than the dress of the inhabitants; and as no other articles of furniture are to be seen in them than benches and cooking utensils, one might be led at first sight to believe, that the inhabitants laboured under the pressure of the severest poverty; but this is not the case, as is shewn by the ornaments of the women; and it is probable that they avoid making a display of wealth, lest itshould be taken from them by the Gorkhiahs; to which may be added the circumstance of their inhabiting this country only from about the 24th of May till the 23d September, when they migrate to the villages of Tapbban, Baragaon, and other places to the N.E. of Josht-Math. These people, from living half the year in one country and the remainder in another, are called Dóbásás, and also Marchtss ; which latter appellation gives a whimsical affinity in situation and name to the former inhabitants of the borders of England and Scotland. They carry on a considerable trade between the inhabitants of the U'ndés and those of the lower parts of the hills. From the former they procure borax and salt, which they either carry to the frontier of the Company's possessions, or sell to the inhabitants of the hills, and take back to Bután grain in exchange. This commerce
produces a profit to the Marchds of at least a hundred per cent. on the grain, and about 150 or 200 on the salt : but can only be carried on during the six months of the year when they reside on the Bután frontier: and as they load goats and sheep with the merchandise, these feed themselves wherever they stop; and, as great flocks are driven by two or three people, the transport is attended with little real cost to the Marchás. But the commerce of the present day is said to be a mere trifle in comparison with the traffic of former times. The goats used for this business are of the breed of this country, migrate regularly twice a year, are short-legged, of a strong compact form, and travel about 5 c6s a day over the most rugged and difficult roads that can be imagined.

The principal articles of the food of the most wealthy consist in the morning of boiled rice and goats' flesh, and at night of cakes made of wheat-flour beaten with water and seasoned with salt and clarified butter; as also of curds and fresh milk of sheep and goats. But wheat-flour is scarcely ever tasted by the poor, who live upon the coarsest and most common kinds of grain; and, when they can get it, eat flesh raw, as has been before observed. Wheat is not raised in this district, but grows to a good height near Jóshi-Math. The following grains are raised here :

1st. Chuá or Marcha; resembling the Amaranthus Gangeticus, or Lal Ság of the Hindus ; used here both fresh, and in its seed when reduced to flour.

2d. Manruá or Manrwé : Cynosurus Coracanus.
3d. Phaphei.-This looks a little like French wheat.
4th. Coarse red rice.
5th. Ana Jau.-I have not seen this growing, but the grain unshelled looks like barley. Shelled, like a poor kind of wheat.

6th. Barley.
7th. Chání or Chéná. Panicum Miliaceum.

## 8th. Kangné. Panicum Italicum.

9th. Jangorá.
Slaves are much employed; and are bought from the Gorkhiahs. In the evening my fakir harcalah, with a real fakir, arrived with intelligence that one of the women carriers, who had followed the circuitous track I had taken on the 31 st , being much fatigued, went to the river to drink, and placed herself on a large stone, which slipping, caused her to fall into the water. The rapidity of the current was such as to hurry her out of her depth, and she was drowned. This matter affected me considerably. On inquiry I found she was without a family.

June 3d.-Leave Malárı at 9 A. M. At 6165 paces, reach our encampment. The quantity of common and lemon thyme near water-courses was very great, but none of it had been cropped by sheep; I also saw basil, savory, mint, and other potherbs, with sedums of several kinds; and I likewise met with some gooseberry-bushes.

June 4th.—After breakfasting in a cave, at the foot of which runs a clear rill down a deep and broad rivulet half choked with a body of frozen snow, we left our ground at 74 A. M. After proceeding 5145 paces, arrive at the village of Nitt. In the latter part of this day's march I found my rate of breathing quickened beyond its natural standard in proportion to the difficulty of ascent, and was obliged frequently to stop, in order that the action of the heart might become less violent. My companion has been aware of occasional oppression in breathing for the last three days; but I did not experience any till this day. The very wretched appearance of the 14 or 16 houses, which compose the town, gives no favourable expectation of the supplies we should here meet with.

[^8]enough, being at the foot of a small sweep of hills which defend it from the N. and W. A gorge, between the Westerm hills and those to the South, gave entrance to the Nitt river; and the valley is shut up, about a mile to the E., by an ascent covered with birch trees, and leading to many gorges and ridges of a high mountain topped with snow. Down the side of the mountain, immediately in face of the town and extending from top to bottom, winds the track of a recent avalanche looking like a new made turnpike road. In front of the town, and between it and the river, are a few flats, which descend by steps, and have lately been ploughed. The town, following the line of the base of the rocks, was originally built in a crescent, but many of the houses have been deserted and unroofed, and now serve only as night stable for cattle.

We sent a message to the Sehana*, importing that we should be glad to see him. The meeting took place at our tent; and the Sehana, whose name was Abjun, began by stating that this was a road which pilgrims to Mansarowar seldom came; that we were armed; that we had many people ; that report said we were either Gorkhalis or Firingts, come with designs inimical to the Undes; and that measures had been taken accordingly. We endeavoured to remove these unfavourable impressions; and after much conversation the old man seemed satisfied. We wrote a letter in Hindustani to the Déba, informing him that for pious and humane purposes we wished to visit the lake of Mdnsarbwar ; that for defraying our expenses we had brought certain articles from our country for sale ; that we had for our own defence certain arms which we were willing to leave in his keeping during our stay in the Undes. On urging to the Sehana the necessity of our speedy departure, he observed that the snow was not yet sufficiently melted;

[^9]that the communication was never attempted before the Sancrant, or entering of the sun into the nextsign; and that this would happen in fifteen days; when they would accompany us, in case the answer of the Déba should be favourable to our intentions. The argument of the road not being open was falsified by the appearance of the Unias; but it was thought best to wait an answer from the Déba.

From the 5 th to the 9 th, the thermometer at sun-rise has been generally at $46^{\circ}$, but in the middle of the day about $72^{\circ}$. The nights have commonly been clear and serene, but there have been a few slight showers of rain in two of them. About nine it becomes pleasantly warm; at noon it is sultry; about three the heat generally and suddenly subsides, and the tops of the highest mountains are enveloped in clouds, which deposit their contents on them in the form of snow, and in very gentle showers of rain in the valley of Nitt. The changes in the temperature of the atmosphere are very sudden and severe*.

[^10]In the morning the summits of the highest mountains are wholly concealed by the snow : about noon the ridges between the ravines are cleared, but it remains in the clefts and gorges : and from three to the following morning the mountain has a new covering. This successive deposition and melting go on during the warm months. But, in the cold weather, when the mountaineers are obliged to quit their habitations, and leave them to be taken possession of by such wild animals as prefer them
in the atmosphere. The clouds are generally white during this time; move briskly towards the north, and change their forms with much vivacity. Their speed is commonly checked as they approach the most lofty mountains, to which they decline, and if they do not come so much within their influence as to burst upon them, they regain by degrees their former course. But about three the clouds become more murky, are stationary, envelope the summits of the mountains, and roll down their sides, discharging their contents in the form of snow upon the highest, and in light showers of rain upon the lower ones. The lower current is formed by the interruption given to the under strata of the higher current by the irregular form of the land bebeath, and is almost continually varying in direction. During still nights the dew falls very heavily : but, when there is a little motion in the atmosphere, the humidity is suspended above the valley and attracted by the hills. The stars are very brilliant, and the north star is beautifully resplendent. A bed of clear light-coloured air in the darkest night overhangs the summits of the peaks which are covered with snow. Once only lightning has been observed; but, there has been no thunder during our stay. Does the great height of the mountains carry off the electricity of the atmosphere, before it can be accumulated in quantity sufficient to displace a body of air with the violence necessary to produce an explosion? I regret that we have no means of measuring our actual height above the level of the sea. All of us feel much inconvenience through it being necessary to breath very frequently, even when going as slowly as possible upon an easy ascent. We anticipate great fatigue from this cause on scaling the stupendous heights over which the road lies. The natives recommend a small quantity of coarse sugar to be eaten whilst we are mounting, and speak highly of the power of the kind of spar found near the snow reduced to powder and mixed with water, in diminishing the distressingly quickened action of breathing. This spar they believe to be snow gradually melted and agam condensed and crystalized by continual cold, and call it Himgal from Him, snow; and gal, from galana, to melt.
to taking an asylum in caverns and glens; the whole surface of the valleys, as well as mountains, is richly covered with snow, which in some parts melts under the influence of heat and rain, but in others remains continually. This mass of melted snow on the vast ranges of mountains forms the great rivers which proceed from them.

When we arrived, the Nitt river, about ten yards broad and from two to four feet deep, sent down a rapid stream of greenish but clear water. The two following days were very hot: the stream was on the 3d, at least a foot deeper, and considerably broader; and the water is clay-coloured and turbid. I have frequently observed, that the water-mark early in the morning upon the stones in the river was a foot and even eighteen inches above the level of the stream at that time of the day, and that the river always rose considerably towards the evening. This is easily explained by the cold of the night produced by the snow on the mountains suspending the melting process, and of course interrupting the supply until the heat of the following day quickens it again. Such a surface of mountainous country, in such a state, along with the vast declivity of the beds of the rivers, will afford a more satisfactory explanation of the real sources of the Ganges than the deriving it from a lake which must have some continual source of supply itself.

The birch trees upon the sides of the mountains, as well as the small rose-bushes, are just breaking into leaf; the furze is just coming into blossom. The natives have some barley, of which a few blades appear, and they are engaged in getting into the ground the awa-jou, phaphar, and chua. This is, it is presumed, their spring; and our rains must be their summer, as their harvest is cut before the middle of September, when the people go in search of a milder climate.

This morning (the 9th) I saw a beautiful crop of rock
crystal shooting out of an exposed layer of quartz which had formerly been a vein in a mass of very hard stone. These mountains, which are primordial, would, if examined by an able and careful lithologist, throw great light upon the natural history of the mineral kingdom; for here, at almost every step, he might come in sight of the surfaces of rock which have never been altered by the hand of man, but have alone been subject to the laws of composition and of destruction, induced by the operation of natural causes.

With the exception of grain of various kinds which is to be obtained at an exorbitant rate, little eatable is to be procured at Nitti. The only animal food, which we have had, has been two or three lean goats. There was no want of kids or lambs; but the owners would only sell such as were ill or extremely old. This country at the present season gives no fruit. The inhabitants have no gardens, and the only esculent vegetables, which we could find, were the Bathua (Chenopodium album), a small quantity of self-sown phaphar about three inches high, and some rhubarb, the leaves of which were only just springing from the ground; yet, even in this early state of vegetating, the flowers were thrown out on the sides of short finger-like processes and yielded a sweet smell. The vital principle seems to be most rapidly called into action amongst the vegetables of this clinate to compensate for the long period during which they remain in a torpid state. Our diet was certainly of a very frugal kind, and would not have been considered luxurious even in the cell of an anchorite : but our beverage was water of so excellent a quality as to make up for the scantiness and uniformity of it. We had been promised by the Pandit, that we should have an opportunity of seeing and probably of killing some Barals. The frist part was verified; for they made their appearance amongst the furze bushes, almost immediately above our heads, and at the foot of the bare rocks ; but never came wittin gun
shot. Although we were told that the richer Marchds sometimes ate animal food, I believe that this occurs very seldom. They are much subject to fevers from derangement of the intestines, brought on from vegetable diet little seasoned ; and several have the Gegha or Goitre.

13th.-This day two Uniyas arrived at Niti with a letter to the Sihána, which neither they nor he could decypher. However a meeting was held upon the substance of the message, which they brought, by the head persons of the principal villages in this neighbourhood. The letter was supposed to be a formal rejection of our desire to enter the country. This conclusion was drawn from the refusal of the Déba to accept our present, and from the verbal notification to us of the decease of the Lama, and of large bodies of troops having been detached to all the passes leading from the mountains into the Undés, to prevent the entrance of any white people, or persons wearing white clothes, into the country, until after the election of another Lama. This message was, of course, very disagreeable to us : however we were resolved not to return without having made every effort in our power to succeed in our original project. The people of $N i t i$ confessed, that they were alarmed at the reports which had been circulated respecting us, previously to our arrival : but, that on seeing more of us, they had sent a Fúnéa or Vakíl to the Déba of Dába, stating that they believed we were men of character really intending to go to Mánsaróvar, having merchandise to dispose of, and not harbouring any evil design against the general welfare of the country. We knew, that the Vakil had been dispatched two days subsequently to the departure of the first two U'niyas ; but we placed little dependence upon the impression he would make. The commencement of his mission certainly took off much from the accustomed dignity of his post; for, in attempting to ride upon a bullock, he with difficulty mounted, in
consequence of being very drunk, and fell off four times before he was able to reach the top of the mountain.

16th.-Another great meeting took place. The $U^{\prime}$ niyas insisted upon our not being permitted to pass; and the Seyánás of Nití and Gomasale, Arjun and Gujar Mall, were decidedly against us, especially the latter. Hardeb was sent back with money to the brother of Nathu, a relation of Ramiishen, Seyana of Malári, who had shewn an inclination to assist us, to bring bullocks immediately, that we might attempt proceeding by the road of Kieulang, and we laid in ten days' provision for all our men, in order that we might not lose any time at Maláŕ in collecting it, Ramkishen acquainted us with the opinion of the council, said he would hasten all our operations at Malérí ; and Harda b was ordered to bring a Jowari (who had made an offer to us of conducting us in three days from Malar\{ into the $\left.U^{\prime} n d E_{s}\right)$ with promises of safe conduct to $N i t i$ and back, and of reward for his services. Hopes were entertained, that in some way we should still succeed by persuasive means with the people of Nití. However, we thought it right to take all such measures, as might appear likely to gain our point without loss of time.

Another meeting was appointed two days afterwards at Gomsale. In the course of this morning two persons had come from Negi Bhawaniseina, with a letter requesting the loan of one hundred and one rupees, to be repaid either in carriage of articles, in provision, or in specie, with interest at 2 per cent per mensem, and a bond for the amount, along with a statement of the prices at which we should receive provisions. He said, that he understood we were delayed, and advised our getting on quickly.

In the evening Amar Singh, the son of the Seyana Arjun, declared to the Pandit, that, if we would place
confidence in him, he would take our baggage to the frontier, would make an arrangement with the Déba by becoming surety for us, and would go with us to Mansarbwar, after which he would settle in Jówar, as he was apprehensive, that the Negi would have recourse to some harsh measures with him, in consequence of his quarrelling with Jowahar Singh, and causing his servant to be beaten. He said if the council at Gomsalt were friendly, it would be well ; if not, he had five bullocks, and would see what was to be done in respect to the further number required. His father was convinced, that we were persons to be depended upon, and was privy to the transaction. As it seemed on many accounts preferable to take the Daba road, the old Pandit on our part went to the father and son in the night, to take their oaths for the performance of their covenant. The next day Hardeb returned with an account of Nathu's brother having repented of his declaration, of RamKISHEN's slackness, and of his not being able to purchase any bullocks although at double their value. It has been agitated whether the Seyanas, altogether, shall become sureties for us: but as yet this motion has been negatived. Once it was proposed, that we should leave our property at Niti, and go on with clothes and provision alone. This was, of course, rejected by us as ridiculous. It was then submitted, whether we would allow them to take it and sell it whilst we should stay for the proceeds.-This was rejected likewise, and we declared our determination to march alone if they would not assist us with cattle.

The Funia arrived on the 19th, and by him it appeared clearly that it depended solely upon the people of this country to give us an introduction; for the Déba said he hoped the Niti Marchas would not give us carriage, observing "if they have not conveyance.for their baggage and provision, they cannot come; but if provided with carriage, as there are no troops hereabouts, there is no method of preventing their entry into the
country." The Fiunia also hinted, that a moderate present to the Déba would overcome all difficulties.

22d.-Amer Singh says that we shall certainly break ground to-morrow; but as yet we see no preparation, save amongst ourselves.

23d.-Still difficulties are started against our proceeding, until there shall be a general consent of the heads of villages, to enter into a security for our good conduct with the Déba of Dábá. We have had no small degree of difficulty in causing Arjun to fix terms for the hire of his cattle. At length we have fixed, that each bullock shall carry the accustomed loads of two men, and not exceed five rupees. Understanding that all the people concerned in our affairs were drinking at Abjun's house, we made a bottle of brandy into a kind of punch, well sweetened, and sent it, in hopes that its influence might be beneficial to our cause; in the opinion of the party it had only the fault of being too limited in quality.

24th.-We were disturbed during last night by the shoutings of men and almost continual barking of dogs. Two large bears had broken into a sheep-and-goat-pen, and carried off one of the goats.

We rose at a very early hour to prepare our baggage for loading, as nine bullocks had been brought to Nitt the night before; but after being ready for two hours without Amer Singh or any of his people coming, we sent word that we wished to proceed. This brought old Arjun, who desired us to delay our journey three days longer, when every thing should be ready. His reasoning was very unsatisfactory, and we urged him to fulfil his contract. In consequence of our remonstrances, he promised that we should begin our march to-day even if Gujar would not consent, although he was particularly anxious to obtain his concurrence to the measure. After
waiting another hour, Gujar made. his appearance and made many objections to our journey. He, Gujar, receired a present of ten rupees, but I had reason to believe that he expected more. Arjun had five, and we had friends amongst the women, in consequence of medicines given to them, as also of silver rings and other trifles, which I had distributed. After a delay of two hours more we took our leave of Niti ; my companion and myself then mounted on a chounr bullock". We were told that the first march was to reach Giutang, a place five cos distant, where we were to halt two days. This compromise we were really happy to make, for it was evident that it was the intention of the people to detain us at Nitt as long as possible, for objects of their own.

Left Niti at $11^{\text {h }} .90^{\circ}$. After travelling a mile, the people would not go any further, saying they were not prepared to proceed to Gutang, and that they would be with us the following day. They wished to solemnize the anniversary of the death of one of the villagers which happened by accident twelve months ago, and their march to But'hant (Bootan) at the same time; and, notwithstanding their promise, it was understood, that they would take up two days in this festival.

Our encampment was on the slope of a hill, situate between the foot of high mouldering mountains and the river Daulf, not farther than a mile in direct distance from Nitt.-However, we had made a start, and were in a better posture for defence, in case of any attack being made upon us, than at Nitt ; for in front of us there was a deep rivulet; on our right, looking towards Nitt, whence only we had any thing to apprehend, was the river Daulf, and, on the left flank, mountains which could not be turned without immense dificulty.

[^11]95th.-Rain fell during the night, and, as the cattle had been turned loose to graze the preceding day, I resolved to go towards the rocks. We had heard the call of birds, which we took to be pheasants. I was three hours in reaching the base of the line of rocks, which seemed not quite three miles from our encampment; and though I climbed as slowly as possible, I was obliged to stop every five or six paces to take breath; and the persons who accompanied me were affected in the same manner. In respect to game my search was unsuccessful, but I met with many plants; amongst others were two kinds of rhubarb.-One I took for the Rheum palmatum, the other was much smaller. I cut up the roots of many large plants. The leaves in several instances sprung from a little sound bark, which surrounded a large portion that was rotten. Those, which were hard, were detached from the sound part of the bark near the surface of the ground: but these shrunk much in drying, and had but little of the rhubarb taste, colour, or smell, whilst the sound fragments of the root of the preceding year were marbled like the cut surface of a nutmeg: some were yellow, and had the peculiar qualities of the rhubarb, with a very large proportion of a bright colouring matter which stained the finger of a gold tint: but I presume, that the best time for taking up the roots is in September. If the quality of this root should be found to equal that of the Leroant, the quantity procurable here at an easy rate would be very great.

We have learnt, that the carousals of last night were kept up so long as to have prevented the partakers from undertaking any kind of business.

26th.-Early this morning I went up the mountains. The ascent was very laborious from the great difficulty of breathing which we all experienced; yesterday, out of five people, two only were able to go as far as I did; today only one out of four could keep company with me;
and he requested me to return, as the cold made him suffer much. The wind blew fresh up the mountain in the line of direction which I was taking: but I found, that I could not take above five or six steps straight forwards, without stopping to take breath; I, therefore, ascended by zigzags of eight or ten paces, which afforded the opportunity of having a side wind in each oblique line. After a toilsome ascent of five hours, I reached a small flat of table land, which, if alone, would have been considered as of great height; but was of minor importance in the presence of rocks of such stupendous loftiness, as those which hid their summits in the clouds. This was covered with a dark green carpet formed by a short narrow-leaved grass of a springy nature, and enamelled with small blue polyanthuses in tufts, with anemones and ranunculuses, but not with any of remarkable brilliancy of colour: after collecting all the varieties within my reach, I prolonged my march, following the track of a chounr bullock up the hill. I was obliged to continue my oblique march; but, on turning my back to the wind, felt a sudden fulness in my head accompanied by giddiness; and fearing apoplexy, I threw myself on the ground with precipitation. After a short time the gasping for breath became less frequent, the action of the head was less violent, and I quitted the turf; but although I walked as leisurely as possible, I was twice again attacked with the same symptoms, and thought it most prudent to desist ascending any higher. The imperious necessity for stopping to breathe at every four or five steps was only felt whilst ascending; when the impetuous action of the heart was reduced by remaining quiet in one place, no difficulty in breathing was perceived, nor was it felt in descending, even in a run, where this was practicable : but several times at our encampment, when about to fall asleep, I have been interrupted by the same sensation. Although not particularly aware of any remarkable degree of heat or of cold, yet I found my hands, neck and face very red, and the skin sore, and blood had
burst from my lips: a circumstance which I do not recollect to have happened to me before.

27th.-Hearing nothing from the Nití people, a messenger was dispatched to learn the cause of their not coming. He went off about ten in the morning, and said that he found all the inhabitants fast asleep from the effects of intoxication. Men, women and children were lying in one promiscuous heap upon the floor-with difficulty he awoke two people, who stated that ARJUN would be with us in the evening, and that we should assuredly march the following morning. They had killed several goats, and burnt the entrails, and some other parts on an altar, but had feasted on the remainder. When a person dies, it is customary to invite all the relations and friends of the deceased to a supper and dance. The night is spent in feasting and drinking at the expense of the property of the deceased; and not unfrequently, the revelry is attended with bloodshed, as was the case last night, three persons having been .wounded with swords.

In the evening Arjun came, and promised that we should start in the morning; but desired to have a bond of indemnity against any mischief that might be done by any of our party in $U^{\prime} n d$ des. This was complied with, we promising to pay five times the amount of any damage done.

Jurc 28th.-Thermometer 511, depart at 7 A.M. At 3605 paces cross melting snow. At 5917 came to our halting ground on the bank of the river. This is called Guitang nacli. Here we found the goats and sheep belonging to the Marchas of Ghomsall, Pharkia and Nttt, who are going to Bootan with grain. Two P.M. thermometer in tent $74^{\circ}$. In the evening Amer Sing and Gojas's son arrived. Rain continued great part of the night.

29th.-Thermometer $50^{\circ}$; morning cloudy and rainy. Leave our ground at six A.M. At 1560 paces the Dault is joined by the Hiroangal, which rises from the Nar-Nardyan mountain of Bhadra Ndt'h, and is a considerable streain. The joint stream is about twentyfive yards broad. Proceed over blocks of stone along the left bank of the Daulk, which hurries down its bed a great body of snow water. At 2370 paces a bed of snow forms an arch, under which the river runs: this bed was about forty yards long and ten thick. At 2680 paces arrive at another, over the edge of which we proceed. At 3109 paces reach another, which like the former passes over the river. At 3580 paces cross on a Sankho to the right bank ; river about sixteen feet broad but rapid ; ascend a difficult hill. At 4630 paces reach its summit. This is the road for the early part of the season; at a later period the best road is along the right bank of the river. The stream is about 700 feet below the top of the ascent just mentioned. At 7350 paces cross a broad water-course called Patarpdní, proceeding from the mountains, and carrying a considerable body of water, due E. into the Dault about a mile distant. On the other side of the river another water-course coming from the $\mathbf{E}$. by S. empties itself into the great stream.

We had been obliged to comply with the extravagant terms of the Niti people at the rate of fourteen Timáshas* for every luad, and a bullock was rated at two loads, that is twenty-five Timáshds; we wished, that there should be a stated weight : but this they would not comply with, and a cow was entered as being equal to a bullock. This proved unused to carry burthens, as she three times threw off her load; at length disengaging herself from what she carried, she ran away, and I was

[^12]obliged to dismount and put her load on my bullock. The Niti people had proposed to carry flour for us to Dabd at a moderate price on goats, but we could not bring them to specific terms before we started, and were obliged to keep this matter open, notwithstanding this renders us still more liable to beimposed upon. To-day they insisted that three goats were equal to the hire of one man ; and although this rate is higher than the absolute value of the goats, we were obliged to submit to the imposition. At Niti our Barell rupees were current in payment for five Timashas; at this place the carriers will only consider them equal to four ; this circumstance explains one reason of the delay in settling the rate of hire.

June soth.-Thermometer $46^{\circ}$ at sun-rise. It has rained great part of the night, and the summits of the neighbouring mountains are sprinkled with snow. Yesterday the first part of our march was through a narrow gulley giving course to the Dauli, the bed of which was formed by the union of the base of mountains of great height. Those, which were principally composed of sand-stone, had their feet concealed by a large slope of sand and small pieces of stone, and their summits were ragged and rapidly breaking down. Of this description for the most part were those on the left bank of the river, and their craggy irregular tops were far removed from the channel. Those of the right bank were principally of granite of a green colour, where washed with the water, and blue, blackish and brown above. The face of these, though by far more perpendicular than the other, and in most instances almost entirely so, shewed manifest signs of the destroying power of the weather. Some of the blocks of stone, which lay in the channel of the river, were of a kind of pudding stone, the insulated pebbles being of a reddish or bluish colour, and the cementing material of green granite; were these masses in situations where they could be worked, they would furnish
most beautiful slabs, as their union is most intimate, and the friction of the water alone has given to many of them the smoothest surface imaginable. At the union of the Daulk with the Hivangal, we took leave of trees; the last we saw being birch and small firs on the right bank of the Daull, just after the other stream had fallen into it. The character of the mountains before and on each side of the slope, on which we were encamped last night, is of a different nature; though bold in their forms, their outline is rounder, less abrupt, and the line of their summits more continued and agreeable.

I awoke at a very early hour, and was immediately seized with difficulty of breathing and great oppression about the heart, which was removed for a few seconds by sighing deeply. When on the point of falling asleep, the sense of suffocation came on, and the sighing became very frequent and distressing: however, as the air became a little warmer, this affection somewhat subsided. Several of the people are suffering from headaches, colds, and affections of the intestines, apparently attributable to the great and sudden changes in the state of the air ; as, in the middle of the day, the thermometer often stood $30^{\circ}$ higher than in the morning.

March at six.-At 3021 paces, desert the Dauli, within two c6s from its source at the foot of a mountain called the Gangdi-noli. At 5960 paces, commence ascending the Ghati or pass which separates Hindustan from $U^{\prime}$ ndés. Ascent very steep and difficult. We rode upon our bullocks the whole of the ascent, which was a mile and three quarters. At 7470 paces reach the summit, where we find a heap of stones, on which is a pole with pieces of rag attached to it; and as it is customary for every caravan or even for a single traveller to add his mite, we ordered a bit of cloth to be suspended in our name. This custom is supposed to entail the accomplishment of the objects of the journey to every one who
observes it. We passed over an extensive plain thickly covered with large stones, upon which the bullocks tread with extraordinary firmness. This plain is bounded on every side with mountains; those behind are covered with snow, without any mark of vegetation; those before sare equally bare, but without snow. Distance this day sabout five miles and a half.

The first ascent was very steep, but not so difficult as -the second, which is called the Nitt Ghatt or pass. Here our conductor, Amer Singh, had some fears that our progress might be impeded by some guards from Dabba, and whilst ascending, called to the Pandit, who had got the start of him, to examine whether there were any watchmen on the summit.-He appeared not a little gratified on learning that there were not any. The height of this pass is so great and long, that a very small body of resolute men on the top might defend it almost against a large army, merely by rolling down stones.

We found the sun hot about eleven, when we began to climb; but it was stated that about three it became so cold that it would be scarcely possible to support it; however, I conceive this to be an exaggeration. In some parts of the stony plain, the snow lay in masses, over .whioh the bullocks trod without hesitation ; and in others, it was melting. Part of this gently ran over the surface into ravines, and part soaked into the ground, and probably broke oat in springsat distant places. Between the Ntti Ghati and the northern face of a bill adjoining a stream called the Jandu, there was not the smallest trace of vegetation.-The distance was about one hulf cós; but just on the brow of the hill declining to the river, were some bushes of furze and green mounds formed by a kind of moss, which is remarkably close and firm. -The stony plain was of great breadth, and was intersected by deep and broad ravines, which took off the melting snows.-These ravines all ran towards the North and East, and are the sources of various streams, which,
joining in their course, give rise to the Setlij. The last range of hills had been represented as not so high as many in Garwal. However, from the view which I have had of them, it appears to me that they are higher; and the general difficulty of breathing experienced by us in passing them comes in confirmation of this opinion.

We encamped on some flat ground on the bank of the Jandu, a river which receives the Sheku, and another branch from the northern face of the great Himalaya range. It was extremely hot when we arrived; and as there was no natural shelter, I laid myself on the ground under at thick blanket. Though oppressed with desire for sleep, I found it impossible to indulge the inclination, in consequence of oppression in breathing, the moment I was dropping asleep; and deep sighing only proved a temporary relief. At three o'clock the wind became very violent, but abated in the morning a little before sunrise. Two U'niyas, going to Nití with salt, here met Amer Singh, and started, as he said, many objections to our proceeding. He thought it prudent, that they should return with us, lest they might spread some report that might be prejudicial to us.

July 1st.-Thermometer at' sun-rise $41^{\circ}$; march at 5,35 A. M. At 3205 paces reach the summit where there is a heap of stones. Here we found the two $U^{\prime}$ niyas, one of whom was busied in lighting a fire, into which the other threw some incense, which he had previously bruised on a stone. He then leisurely walked round the pile of stones, in the midst of which was a statue having a piece of cloth tied to it ; and, whilst walking, uttered a long prayer. To the East was the sacred inountain near the lake of Mänsarboar, tipped with snow, and called Cailás or Mahadeó ka Ling*. Turning his face towards this

[^13]mountain, and after raising his hands with the palms joined above his head, then touching his forehead, he suddenly placed them on the ground, and going on his knees, pressed his forehead to the ground. This raising of the hands, and prostration of the body and head, was repeated seven times; the other $U^{\prime} n i y a$, less devout perhaps, contented himself with three salutations and a short prayer.

Came to a large plain divided into several portions by broad ravines, and having several broad but not high hills on it. The only marks of vegetation upon it are low bushes of the furze, which may be called Tatarian, and small mounds of the compact moss before mentioned, with here and there a small tuft of a thin silky grass just springing up. Patches of snow still upon the ground, and splashes of water in which the feet sunk considerably. Although I give our Nití friends credit for detaining us as long as possible, I nevertheless think we should have found some difficulty in passing these plains ten days ago, from their then swampy state. At 5400 paces, leave some snow in a hollow close to the left. At 5840 paces, come to another heap of stones, and descend rapidly along a ridge between a water-course, now dry, to the right, and one to the left, having a stream running down its bed. At 6000 paces descend. At 6965 paces, encamp on the left bank of the Chastu river, the source of which bears S .70 W . and springs from the northern base of the great Himalaya ridge. The bed of the Chagla river is about the sixth of a mile broad, pelbly and fleet, with several small but rapid currents running down it. The rivers to the South of the great Himalaya ridge are narrow, from the sides of the hills being very steep and their bases forming a narrow angle with little valley. Those which rise on the northern base of the same ridge have broad flat channels, the water draining into them more slowly from the table-land and the more gradual and gentle slopes of the hills.

A hunter, whom we have long employed unsuccessfully, this evening brought in a female Baral ${ }^{*}$. It was about the height of a hog deer, (Cervus porcinus) with its legs and feet much like the sheep, and some similarity in the head, but the ears were thinner and narrower. It had eight teeth and two horns which curved lightly backwards. Its hair was very hard, and on the neck close to the skin grew some fine wool. Its general colour was ash or grey, but it had its shins and tail darker than the rest, and under the belly it was nearly white. It had four stomachs and a gall-bladder; a vesicular tænia was in the mesentery, but I broke it in endeavouring to extract it. Were it not fanciful to suppose a chain in the works of nature, I should say that this animal was the link between the deer and the sheep.

In crossing the plains I have seen no insects save a few small yellow butterflies; no reptiles but a little active lizard of a dun tint; no game, and no birds save the red Títí, larks and linnets : but at our encampment there were raveus of a large size with a loud caw, an immensely large eagle on the wing, and a blue pigeon with lighter plumage than that common in Hindústan. I conceive that no trip would be more instructive to the physiological Botanist than one across the mountains which separate Hindustan from Tatary, as plants of the same kind vary in their size, tints and strength, according to the difference of their situations. Sometime I thought that I was mistaken, but having seen the habitudes of many flowers differ extraordinarily in different places, and as the difference between those on the summits of gigantic mountains, and at the bottom of profound glens, was presented very frequently to my eye with intermediate shades in intermediate places, as to elevation within a short space, I was enabled to recognise their identity of family,

[^14]after a little time, without difficulty. At sun-set high wind arose. Thermometer $54^{\circ}$.

July 2d.-Thermometer 5, A. M. $44^{\circ}$; wind subsided during the night. The general direction of the rivers which we now meet with, is E. by N., although they rise from S. 70 W . As the cattle had strayed, we were delayed until half past eight. At 5168 paces the mountain, along which we have come this morning, ends parallel to the left one. At 6845 paces arrive at our encamping ground, which is bad, as there is only one small spring, from which the water is taken by a small ladle as fast as the hole fills, and this is very slowly. Here we found a square tent of black blankets pitched with four poles at the corner, and belonging to some U'niyas who had come from Dâbá to graze their goats. As the water was not in sufficient quantity for the supply of the U'niyas and the Niti people, another well was dug, which gave what was required for cooking; but that for drinking was brought nearly three cos. An $U^{\prime}$ niya woman, wife to one of the goatherds, very good-naturedly filled the water-vessels of those persons who came to the little well, and did not take up her own part till the different candidates for water received the quantity which they asked for. She had rather a pleasing countenance, was of middle stature, and about thirty-five years old. There was much of curiosity in her looks at seeing us, but nothing of fear or impertinence. Her dress was woollen, and of the same form with that of the men. Her boots were likewise woollen, and much diversified by patches of various hues. Her hair, which was of a deep black, was plaited in tresses from the forehead down to below her wuist, where the plaits to the number of fifty, after each beiing teriminated by a cowrie shell, were assembled in a band of leather which was tipped with a tassel of red worsted thread: her head-lappet, if I may so name it, was of leather, and extended from the forehead down the back to the
waist, but in the latter part gradually ended in a point. At the forehead it was bordered with silver, and from this rim hung seven rows of coral beads, each row consisting of five, which were terminated by seven silver Timashas that played upon the forehead. The crown of the lappet was studded with small pearls distributed in seven rows, and the lower part was decorated with green stones something like turquoises, but marbled, with coral beads, and many bands of silver, and of a yellow metal, probably gold, about a finger's breadth. A stiff band of leather something like a soldier's collar was placed loosely round her neck, and ornamented with frve rows of coral beads. The collar was secured with a button and clasp of silver. In her left ear was a coral bead set in silver, and in her right were two smaller beads.in the same material. On her right thumb she wore a square gold ring with characters engraved on the table.

On quitting the spring in the way to our encampment, we saw some of the Bampo Marchas sitting by their loads, with a dead sheep lying on the ground in its fleece, but having the entrails taken out; on a dish lay some of the intestines cut in lengths like black puddings, and I was led by this to inquire what they were and how made; and from the intimation which I received, was a little surprised to find the borderers of Bootan, well acquainted with the art of making black puddings. The carcass of the sheep was afterwards, 1 understood, roasted whole, by being frequently turned in a fire of furze roots.

This day we were treated with some chops from our Baral, and we foand the flesh juicy, tender and high flavoured. There was a Bootan priest sitting with some shepherds from the neighbourhood, cheapening small wooden bowls turned out of knots of horse chesnut. They are very durable, the knotty structure proventing them from either breaking or warping. In the evening there were some peals of distant thunder, and an appearance of much rain; however we escaped with a few
drops, the mass being attracted by the hills to the north. The U'niyas had dogs with their flocks, which were fierce and much disposed to attack strangers.

July 3d.-Thermometer at 5,-58 ${ }^{\circ}$. Marched at 5,-10, as our conductors were anxious to reach Dabá at an early hour. Road leading over a dry gravelly plain, much cracked, and with little vegetation, except here and there some low bushes of furze, small tufts of a silky grass springing out of this cleft, and a woolly plant like that commonly called " everlasting," perhaps a kind of dittany. A snowy peak in front. The road lies over a plain of great length, but not of above seven cos in breadth, and consisting of many levels or steps broken by deep ravines, the edges of some of which are as level as if executed by art. On the south, the plain is bounded by the last Himalaya ridge, just tipped with snow in stripes like foot-paths, extending along the windings of the ridges: on the north, by the Cailds mountains, the summits of which are marked more distinctly with snow, and the bases of which descend to the level of the plain by easy slopes and diminishing swells, forming a succession of steps separated from each other in the length of the plain by breast-works of broken ground. Behind, the mountains seem to meet in an angle near Mahddéva ka Ling; but the plain seems to expand before us till it is shut in by stupendous mountains, whose sides, as well as craggy summits, are apparently very thickly covered with snow. To the left, or rather to the S. W., are the mountains of Baschar. At the distance of about two miles, a little to the W. of N. is a most extraordinary face of broken ground. This represents pyramids, in some places joining their tops but separate at their bases; in others, separate at their tops but clustered at their foundations: buttresses of various proportions and forms; and no unapt resemblances to ruined castles and fortifications in piles above each other.

The town of $\boldsymbol{D} \& b d$ is perched upon the top of a rock,
which juts out towards the river with an irregular declivity, and is surmounted by the highest eminence in the whole line which defends it from the N. W. At 5306 paces the river close below, and a few cultivated fields, which are the first we have seen in this country: encamp near a rivulet in the town.

It was considered proper that Amer Singh should announce our arrival to the $D e \dot{b} a$, and inquire when we might wait upon him. It seems that there are three personages of importance here, the Lama, the Wazir and the Ddeba, who is properly the head zemindar. The Wazir was absent on business towards Mansarbvar, and his son officiated for him.-Amer Singh reported, that the $D E b a$ and Wazir's son were very angry with him for having afforded us carriage, as without this assistance we could not have come on; and he had more reason to be displeased, as he had sent two messengers to forbid our entering $U^{\prime} n d e ́ s .-A m e r ~ S i n g h ~ m a d e ~ e x-~$ cuses; saying they had delayed from time to time furnishing bullocks under the expectation of our being wearied and giving up the idea of proceeding; but that, so far from this producing the effect which he expected, we threatened to make him advance not only the expense of our stay at Niti, which was considerable from the number of people we had with us, but also to pay the charges of the whole of a journey, which, by his not forwarding us, was likely to end in disappointment. But the $D e{ }^{e} b a$ still remained displeased.

In the evening there was a consultation betwixt the Wazir's son, the Déba and the Lama, at which were present Amer Singi, the old pundit, a sircar and a Jouar man. It was stated by the Déba's people that it was necessary to report the matter to the military chief, who resided at the court of Gortope, a place about two days' journey distant, and who exercised a general governing power over the country.

July 4th.-Thermometer $54^{\circ}$-Amer Singer sent wond that the council was ready to neceive our visit; and we set out towards the government house, whigh was about a hundred yards distant, accompanied by a few servants. The house on the outside was not of a very imposing aspect, though built of stone. Over the door a large dog was tied, which eyed us with attention, but did not attempt to molest us. We passed through several passages and small anti-chambers full of people, into a low room of about 18 feet square, in the middle of which was a small carpet for us to sit on. Immediately in front of us on a ledge raised about a foot, sat two young men, one of whom was represented as the Waztr's son, and the other as the Deba, each upon their cashions; on their right, and forming the upper end of another line of persons extending from one side of the room to the other; the Lama was seated upon a leathern cushion, next to hima a priest, and then an interpreter; the Seyanas of Nitt formed an opposite line ; and we were seated in the centre of a square of people, who, if not very clean, were at least ordeily and respectful in their behaviour. The young men were large in their persons, the Wazzr's son particularly so, and about twenty-five years of age; the Deba was somewhat older ; in the features of both, the Tatar character was observable, though not in any very great degree. The Lama was about sixty, with a shaven head, dark complexion, serious and wrinkled countenance, and features of a common cast. The priest beside him was still darker, more ugly, and more greasy in his clothes, reclining partly on the floor, and partly on the ledge on the upper part of the room; near to the Deba was a young woman of pleasing face, wife to the Ddba, and daughter to the $W$ azir, with a pretty child in her arms, and the left returning line from the Déba was begun by a writer of dark countemance. The Waztr's son was dressed in a large loose coat or gown of woollen staff, striped blue, yellow, green, and red, alternately about a finger's breadth, and said to be manufactured as

Guinnak, the capital of Chinese Tatary. His hair was collected into one large plait which hung down his back, and he had no beard. The Déba had on a dark green woollen gown, and his hair was plaited in the like manner. His beard was plucked out, but he had reserved a thin mustachio on the upper lip; both the Wazer's son and the Debba, wore broad rings on the right thumb. Their ostensible use was for defending the thumb in drawing the string of the bow; but it served very conveniently also for trimming their tobacco-pipes, which lay in readiness beside them. -These were about eighteen inches long, in the form of the English pipe, but made of iron, decorated with e mbossed work and a rimh of gold, and a circle of the same metal at the union of the bowl with the stem. A small japanned table was before each, and on them were implements for writing with two round wooden boxes japanned, and a large red and white china tea-cup.The LLama had before him also a japanned long and low stand, upon which was a round box.-When we entered the room, the Déba was correcting a letter, which he had written to the commander of Gortope, and which he read over, desiring Amer Singh to explain the substance of it to us.-He read with a distinct articulation, with occasional pauses. The langaage was soft ; and the substance, as far as we could collect it, was as follows.-That Amer Singh, and other Seydinas, had brought along with them two Mahants, and twenty-five followers, who weredesirous of proceeding on a pilgrimage to Mánsardvar ; that the first representation of their being Gorkhalis or Firingss, was a mistake: and that the arms which they had with them, were only sufficient for their protection during solong and hazardous a journey as that which they had undertaken. -That the Seyanas had entered into an engagement that these were real Gosains, who brought merchandise to defray their way expenses, and that they would be responsible both in their persons and property, that they should demean themselves peaceably and properly whilst they should remain in the country, paying
for every thing they might require, and taking nothing by force; and as they had been put to much unnecessary expense by their being delayed at Nztí, the Déba trusted that the chief would give orders for their being allowed to proceed without delay. The Déba caused also a written agreement to be drawn out on the part of $A_{m} E_{R}$ Singe, binding himself to the truth of the above deposition in the name of the several Seyanas, and to which he affixed his seal. The letter was forwarded to the chief of Gortope, after the consent of the Lama had been received.

It was stated that the Lama had never before left his college on matters of business; and we were to consider this as a great compliment paid to us. Between the Lama and the Wazir's son was an empty place which was supposed ordinarily to be filled by the Wazir ; and before this was laid down our present at our first coming into the chamber: inquiries were made whether we would drink tea or eat parched meal, which we declined on the score of having just risen from our repast, but which we could not accept in our character of Hindus, these people having no caste; a large brass dish, half filled with butter and wheat-flour, was placed before us as some return for our present, and we took our leave.

Yesterday a person came to us from the Déba to inquire after our health. He looked about my small tent with much curiosity, and observed that my friend's halfboots were like those of a Feringi.-I had taken the precaution of having my. English shoes furnished with long turn-up toes and tags at the heels, and this not being done to the others, excited his suspicion.-The redness of my face, which, from being exposed to a hot sun and cold wind was almost wholly deprived of skin, particularly attracted his attention. The explanation given was, that, before this pilgrimage I had been but little exposed to the sun which had produced the effect which he saw. The same inquiry was made by a very black priest who
came on the part of the Lama, and who said that if such was the influence of climate, he supposed he should become white, if he were to go to the country I came from; in about two hours after our visit was paid, the Wazir's son, the $D e ́ b a$, the interpreter, the Déba's wife and sister came to look at our finery, and admired several things, but found all our articles vastly too dear; and I think in general they were right; for we had affixed prices in some measure to make up for the expenses to which we had been subjected by imposition and delay.-The Deba's wife fell in love with a ring which she actually asked for, and of course obtained. Five " children of a larger growth," who were extremely inquisitive, were desirous of knowing the contents of a bundle of my clothes; they were made in the Hindu fashion. The Déba was anxious to see our guns; but, from his mode of handling them, it was clear that he knew little of the use of fire-arms. We ofiered our guests tea, which they refused, but they partook of some sweet biscuits, gingerbread, and sugarcandy. After a stay of an hour, they left us, apparently satisfied with the reception which they had experienced.

July 5th.-Thermometer at sun-rise $48^{\circ}$.-The town of $D a b b a ́$ is situated partly upon irregular eminences, forming the side of a flat ravine descending rapidly to the river Tiltil, and in the bed of the ravine itself. Its situation, construction, and appearance, are altogether unlike any thing which I have ever seen before. The ravine, or bay, is surrounded by heights consisting of strata of indurated clay and thick beds of gravel. Some of these heights are above three hundred feet in elevation, others are less. They are broken into masses of various shape by the torrents of snow-water which fall down their sides. Some are like large buttresses with pointed tops; and others, though of greater height, are surmounted by flat spaces.-Their sides are full of excavations, to some of which are wooden doors; and others are merely caverns; of these, some serve as houses, but the greater
part as granaries or rooms in which the inhabitants deposit their property, when they leave their houses in the town for a warmer situation during the most severe season of the year, when the ravine is nearly choked up with snow, so that Dábá is only to be considered as a summer residence. The houses are of stone, two stories high, white-washed on the outside below, surrounded with a band of red and French grey above, and having terraced roofs surrounded with parapet. The tops of the walls are decorated with lines of pieces of different coloured rags tied to strings. The inside is very filthy; the floors of little yards, which lead to them, being covered with bones of sheep and goats, fragments of bones, and locks of wool. From the ground-floor, which is raised, a wooden ladder leads to the terrace, which in the Wazir's house is divided into an enclosed verandah that serves as a chamber of audience, and into an open space used as a promenade by all the family. The town is divided into three parts, viz. a college, the residence of the Lama and his Gelums, or monks; a nunnery ; and the houses of the Wazir, Déba, and the laity in general. Immediately in the centre of a semi-circular sweep formed by the houses, are temples or inausolea of Lamas, with smaller ones attached to them. These are circular at their base, diminish by smaller circles, and terminate in a point covered by plates of copper, like umbrellas, and gilt : in the centre above these, surrounded by horns, and painted of a red colour, stands an irregular building with one door, and surmounted by a square smaller building, tiled with brass gilt, and decorated with grotesque figures : it is the temple of Narayan or the great spirit. The parapet of this building was adorned with masses of black hair, formed, I believe, of the tails of the Chouri cow reversed, plaited and intermixed with pieces of some shining substance, and having on their tops iron tridents.

This morning was dedicated to a visit to the temple, and afterwards to the Lama. A priest, by order of the

Lama, opened a locked door, on which was a ring attached to the centre of an iron embossed shield-like plate inlaid with different metals. This led to the porch of the temple, lighted by an opening in the roof to the East. The side walls were painted al fresco on a white ground, with a bold sketch of some deity, with large staring eyes, and enveloped in a kind of glory. The doors being thrown open, we entered an apartment of about 30 feet square, lighted only from the door, and from two large silver lamps on attached pedestals of the same metal, about 18 . inches high, placed upon a low japanned stool in the middle of the floor. At the upper end of the temple, and immediately fronting the door, was a figure of Náráyan, of copper gilt, in the European sitting position, and about 20 feet high. The hands were lifted up, with the palms gently inclined forwards, as if in the act of benediction.-These, with the feet, were the only parts exposed; the rest of the figure was draped with narrow robes of silk. On his right hand was a smaller figure of Lacshmi; and on his left, that of a Lama crowned with a conical cap and dressed in pontifical robes.-These figures, also well executed, were likewise of gilt copper ; a flight of small benches descended from the feet of each of the last figures, on each side of the room, as low as the foot of the throne, leaving a space clear before. On these was arranged in rows the greatest assemblage of Hindu deities I have yet seen. They were of brass, exhibited great variety of countenance, and much better proportion of parts than I have before witnessed. The whole of the group just mentioned were placed in a recess bounded by pillars reaching from the roof to the floor, and separated from the body of the temple by a wooden screen about four feet high, furnished with shelves descending in gradation to the floor.-On the upper range were the effigies of deceased Lamas carved in wood, with their mothers, and the principal persons of their household; a large gilt pyramid was on one side of this screen half concealed by a silk veil, and
another elevated figure, something like a sceptre on the other; each on a large gilt stand. Lower down was a gilt chest; and on the floor, in the space fronting the door, was a low table, on which were ranged several rows of brass, silver, and gilt or golden bowls, containing water for the use of the deity; a small quantity was poured into my hands, part of which I drank, the rest washed with and threw over my head, as I was directed by the officiating priest: we had a carpet spread on the floor in front of the deity, and immediately under a large expanded umbrella. I had given a present on my first entrance, and afterwards added another trifle for the particular use of the priest in attendance, who desired us to come forward, and examine more minutely the figure of the deity, and receive a portion of his sacred vestments consisting of a stripe of a white silk gauze which was put round our necks. In returning we saw masks of leather in imitation of the heads of stags, tigers, bears, and demons, worn at the celebration of some great festival, ranged on shelves; and on wooden frames, piles of sheets of writing within small planks of wood, like the boards of books without backs, lying on open latticework tables.

On leaving the temple we were desired to turn some wooden cylinders supported on iron cylinders, in recesses in a wall, and to go round the building seven times, a ceremony which it seems is prescribed to those who wish to have an audience with the Lama after a visit to the temple. Whether this was mentioned merely to enhance the sanctity of the place or the personage, or was really the custom, I know not, but the ceremony was interrupted after one round, and setting the whirligigs, by a message from a priest, that Amer Singri was wanted elsewhere. He understood the signal, and went to a small door, which when knocked at, was opened by a laughing ugly fellow, who pointed to four coils of shawl wool, for which a bargain was immediately struck.

We were desired to make another turn round the temple, and were atterwards led up two very steep flights of stairs towards the Lama's apartments. Over the first door hung a string to which were attached some leaden pipes, in imitation of the iron ones used for smoking. In an open apartment, up a third flight of stairs, surrounded by a veranda, on a small and thin cushion placed upon an old mat, the bishop of the diocese was seated. We each made a present of a rupee, and three for the Gelums; the latter he would not touch, but sent for the steward to take charge of, and ordered that they should say prayers for us three times; after which the money should be divided amongst them. His manners were mild and conciliating. To our interpreter he signified that he did not approve of our desigu of building a hospice at Mansarovar. We stated that we should attend to his opinions, even if our money had been in greater plenty than it now was.

At the suggestion of Mr. H., I laid the string of beads, which I usually wore round my neck, at his feet. He was struck with the circumstance, rose, beckoned to two Gelums to accompany him, and after a short absence, returned with a pot of sour milk, some butter in a bladder, a kind of cheese and a cake of sweetmeats, which it was signified was considered so good as to be thought worthy of being presented to the deity. He also brought a string of wooden beads, which he desired me to accept, as a mark of friendship, in return for mine, and which I accordingly put on; we departed highly pleased with the manners of the prelate. In the evening we paid a friendly visit to Wazir's son.

July 6th.-Thermometer at sun-rise $46^{\circ}$; I had caused the pundit and Amer Singh to inquire for wool, in order to purchase a quantity and forward it to NEtE, and have this day the mortification to find that the people dare not sell any until we shall have received pcr-
mission to buy from Ghertope. This is caused by strict injunctions to all the owners of flocks not to sell any shawl wool except to the Cashmirians, or their agents, in consequence of a representation having been made to the Government, that the Jouaree merchants had bought some last year, and that the Cashmirians would suffer, if any of this kind of wool were to pass into other hands.

During the period that the $U^{\prime}$ ndes 'was governed by Rajas of the Rdjeput cast of Sirajbans, and subsequently that it passed under the dominion of the Chinese, the independent Tatars of Ladák were extremely troublesome to the inhabitants by their frequent inroads, and only ceased their depredations in consequence of this country being given in Jagir to the Dela Lama. The sacredness of this personage, who is the head of the religion of the Tatars, caused them to desist from their incursions, and probably, would have the same influence in the event of any alteration in the current of trade: but to this, it is likely, that they would make great resistance.

July 7th. -Thermometer 420; The Whztr made us a visit and staid nearly an hour. I observe, that the priesthood and the immediate officers of Government are in easy circumstances, as also are the goatherds, but the rest of the population are plunged in the most abject poverty, and literally clothed in rags.

July 8th.-Thermometer $46^{\circ}$; at noon in a tent $73^{\circ}$. We have heard that an answer is arrived from Ghertope. In the evening I went to inquire the determination of the Government upon our affairs, and was informed that in the following morning the letter should be read to us.

July 9th. Rained.-Thermorneter at sun-rise 300. It being past eleven, and not hearing any intimation of our presence being desired, I proceeded to the goverr-
ment house, and found the Council sitting, assisted by a number of people whom I had not seen before. I addressed myself to the Council; and as we had been informed that a letter had arrived from Ghertope, I begged to learn the sentiments of the Governor in respect to us, and their final determination upon them. The Wazir said, in reply, that the Governor of Ghertope had signified to him, that intelligence had been conveyed to him about three years ago, that some Europeans were about to come into the country; and, whether we were the persons alluded to or not, he wished to see us, and the goods we had brought, of which he requested an exact inventory to be forwarded to him, and prohibited any sale till he should have inspected them. I told them, that, although we had suffered mach from delays, yet that out - of respect for the authority of Government, we were ready to go to Ghertope, or even to Lassa, should it be required of us, as we had no other than honest intentions; but as we were ordered to go by the Government, it was but reasonable that we should be furnished with carriage. After much altercation, it was agreed, that cattle were to be ready in three days; and that as many as could be procured should be purehased, we taking the responsibility of the measure upon ourselves. In an hour, the interpreter came to say that we should have the requisite bollocks, and we are to start in three days from this date.

In the evening we went to see the temple of $N A^{\prime} \mathbf{r a}^{\prime} \mathrm{YaN}$ again, and to pay our parting visit to the Lama. We found the old man in a small cell just large enough to ullow of three people sitting down ; with a raised bench of brick, fronted by a railing of wood, with a little door in the centre--Although early, he was retiring to rest or meditation; and considering the wealth of the college, whith is reported to be very great, was a real and edifying picture of humility. He wished to know very particalatly if we should return by Dadba. We answered cer'tainly. He was mach pleased with our attention, and 2F2
putting out his hand to take hold of my friend's white gown, he being a little nearer than me, said "I pray you let me live in your recollection as white as this cloth." There was something particularly affecting in his manner and utterance, and I could not help bending over his outstretched hand with emotion, as I took leave of him.

I mentioned that there are a college and a nunnery. The Gelums, or monks, seem a happy, good-humoured set of people, dirty, greasy, and in good case. They carry on a considerable trade in sheeps' wool and salt, in exchange for wheat and barley. Of the nature of the institution, I could learnlittle. Of the Paraphernalia of the temple, the resemblance with those of the Romish church was very striking. The Gelums observe celibacy. There is a nunnery, the rules of which are said to be severe. Commerce with man is punished by solitary imprisonment, and a heavy fine.

July 10th.-Thermometer $48^{\circ}$. This evening we purposed to mount a hill, on which formerly was a house belonging to the Raja ; and there still remains a temple. In our way, passing close to the house of the Waxir, we found him, the Déba, and several servants, shooting at a mark with bows and arrows. There was novelty in the contrivance of the target. The bull's eye was composed of two parts, the inner one, about four inches in diameter, was of wood, convex, and painted black in the middle, with a circle of red on the outside. This was placed in a roll or cushion of cloth which it fitted tightly. The arrows were tipped with wooden balls, some of which were solid, and others hollow, with four holes in the end, which caused a whistling sound as the arrow flew through the air. When the arrow missed the target, and struck against the butt, it fell to the ground ; if it hit the soft shell of the target, it did not disengage the bull's eye; and no arrow was accounted a shot, but that which dislodged the eye from the target. When struck out, the
eye did not fall, but dropped a few inches lower than the circle, where it was held by a string from an upper projecring rod. This is altogether not a bad contrivance, as it prevents disputes. These people pull the bow more in the English manner than in that of the Chinese, their neighbours and masters; but their instruments are very indifferent ; and they are not formidable archers. They use also the sling, but I had not an opportunity of seeing them exercise with it. Leaving the archers, we ascended to the top of a hill about 300 feet above the level of the lower town, along a zigzag road, and through some winding passages excavated with little art in the strata of gravel and indurated clay. The inside of this temple was by no means so rich as that on the other side, and the priest complained of poverty. He said, he felt an interest in our welfare, and recommended our departing without delay, as the governing people were not good, and we might, if we stayed long, be caught by severe weather, and perish. We thanked the old man for his good advice, and left him more substantial proof of our regard, for which he was very grateful, and placed round our necks small stripes of gauze. During our stay, the Gehums began an evening Hymn, which was not unmusical ; but, in a very small cell sacred to Bhava'ni, three persons were making a noise not unlike the quick chirping of grasshoppers. There were small statues of the last Súrejbans Rájh, his son, daughter, priest, treasurer, and other persons of his court. As it is the custom here for a considerable portion of the property of every person who dies in affluent circumstances, to go to the church, and as likenesses are sent to the priests, who pray for the repose of their souls, as in the Roman Ca tholic faith, I apprehend the series of figures represented the whole of the court; and in this idea my belief was strengthened by observing some females of different age and character on a bench, immediately behind that on which the Rajja was seated. The head-dress of two of these.was very similar to that of abbesses. The Rajá,
whose resemblance was here preserved, in consequence. of the frequent inroads of the Ladelkis, and of his father being killed by the Tatars, was sent by the principel people to request the protection of the Chinese, who accorded it and assisted him against the invaders. But in an earthquake his house was precipitated, along with himself and his household, into the plaia, and the Chinese afterwards availed themselves of his death, to take this country for their own use, and after a certsin period to give it to the Dela Lama.

At this last temple there were few musical instruments; but at the great one, we saw some prodigiously large brass and copper trumpets, made of tubes, which shut in and drew out like telescopes, and had small mouth-pieces or pipes, which were distinct. There were also drums of great size set in frames and beat upon their sides.

There are granaries in the rock on which the small temple is situated, in which they say that there are many thousand maunds of rice, for the use of the people generally, in the event of any great exigency ; and this is certainly a very prudent precaution, as scarcely any grain is raised in this country, and the inhabitants are dependent for their annual supply of rice and barley on the Marchas of Nett and Joudr. Shortly after the period that the Gorkhas made an irruption into the territones of the great Lama, the Chimese government ordered 30,000 maunds of rice to be taken out of the magazine, which is in fact the property of the public; but how the funds are provided, I did not learn.

July 12th.-Thermometer $51^{\circ}$. The Chouar bullocks arrived at day-break; and having paid for their hire, as well as for the food of two horsemen who were to accompany us, into the hands of the interpreter, we struck our tents and took leave of Dábá. At 4906 paces arrive at the summit of hills, said to contain gold. To
the right are clay hills, broken down by melting snow into strange-looking projections and hollows. Scarcely the slightest appearance of vegetation, and yet a hare was seen upon these heights. At 5116 paces reach a narrow pass, through which we go and descend to a stony plain, then enter a very deep water-course, now dry, of which the banks are perpendicular, of vast height, and formed of beds of gravel. I examined their structure with great attention, in hopes of finding some traces of marine productions, but was disappointed. At 7230 paces came to a plain sloping to the Satúdra or Setlej. It came from the S.W. by W. and ran N.E., receiving here the Tiltil; breadth 80 yards, depth 3 feet. The current was so rapid, that I could scarcely keep my footing. On the plain were two very beautiful poplar trees, in which were mapy goldfinches, which regaled me with a song, whilst I sat under the shade of the trees, waiting for the party, having reached the river half an hour before they arrived.

The broken ground in the neighbourhood of Dabá, and which we did not lose sight of, until we quitted the bed of the Tiltil, was very extraordinary in appearance. The right bank was of great height, and the melting snow had cut the clay of which it was formed, into channels, leaving intermediate ridges, which, from difference of hardness, or being acted upon by the water in different directions, was fashioned into great diversity of figure, in some places representing castles, fortifications, houses, and masses which baffled description.

[^15]rich in gold, are granite of mixed colours, the red predominating, with horizontal strata of quartz and small fibrous veins of a white material like agate, descending perpendicularly: where the rock has been exposed to the weather, its surface is broken into small pieces, having little more cohesion than clay burnt in the sun. This decomposition is effected, I suppose, in consequence of the different materials of which the mass is composed, not being intimately united, and water entering the fissures where it congeals, \&c,, bursts the structure.

The gold here is separated by washing, there being no fuel, in the neighbourhood; or rather no wood; for, from the appearance of some of the hills, I apprehend that they hold coal. In the bed of the Setlej, were many large flowering shrubs, which I take to be a species of the tamarisk. I have found it from three inches high to eight feet, in situations more or less favourable. The yaks and goats were very fond of the foliage. I observed, that the bite of the yak is quicker and nearer the ground than any other species of neat cattle I am acquainted with; a peculiarity which fits them for the short and scanty herbage of an Alpine country.

We have descended much to the Setlej, notwithstanding the mountains are high, which intervene between this river and Dabba, and the heat is great. In the tents the thermometer stood at $96^{\circ}$. . Distance come this day 7595 paces.

July 13th.-Thermometer at sunrise $56^{\circ}$; march at $6^{\circ} 30^{\prime}$. This plain isstony, abouthalfa mile in breadth and length, bounded partly by heights and partly by the Setlej. It is full of shallow pits made by persons who have dug for gold-dust, and left heaps of stones by the sides of the excavations. At 306 paces ascend to another flat which has likewise been dug. At 1835 paces reach a small flat, where there has been cultivation ; caves of gold
mines in the rock to the left, now deserted. At 5975 paces reach a house, near which are two gold mines with tunnels under the surface.-Heretofore the excavations were perpendicular. The earth is dug out and carried to the brook to be washed.-At 6182 paces arrive at the ground for encampment near the village of Damoo, situate half-way up a rock on the right bank of a watercourse, in the direction of which we travelled most part of this day, consisting of a few red houses, and many caves, with two or three temples.

In the evening killed seven hares.-There are great numbers of these animals. They are shorter in their bodies, longer in the hind legs, and somewhat smaller than those in England.-Their fur is much finer and longer : altogether they are much paler generally. The under part of the neck is fawn colour, sides greyish, belly white, and the thighs are furnished with thicker and longer furs than the rest of the body, and of an ash or lead colour mixed with grey.-When disturbed, they fly to the mountains, but frequently stop and rise on their hind legs to look at their pursuers. Their flesh is well tasted; and they are very prolific ; as in two there were eight young ones. Some cultivated land under the grain called ad'hé jou, well irrigated.

July 14th. -Thermometer $52^{\circ}$; leave our ground at $5^{\text {h }} 25^{\prime}$. At 5780 paces much saline efflorescence on the ground, supposed to be soda, cracked under the foot like slightly frozen earth. The skeletons of two wild horses were lying in the valley. In various parts of the road we have found many skulls of the male Baral, with enormous horns.-Some have at least been from 50 to 60 lbs . weight. We meet again with rhubarb which we had long lost sight of. At noon, thermometer in the tent $75^{\circ}$ : on a high hill to the right, three wild horses suddenly made their appearance, probably for the purpose of coming to water; after looking at us for some time, they
went off at a smart trot. They were too far off to afford a very clear view, but seemed to be about thirteen hands high, a bay colour ran along the upper part of the neck, and back and sides were of a fawn or azure colour. Their heads appeared thick and short, but well carried : their bodies round, short : general shape compact, clean, and tail thinly furnished with hair.

July 15th.-At sun-rise, thermometer $41^{\circ}$; march at $5^{\mathrm{b}} 40^{\prime}$. At 574 paces a bed ofsnow in the water-course. The plashes of water on the surface of the ground, melted during the day, are frozen during the night. Road ascends to 1934 paces, when we reach the level of a beautiful plain about a mile and a half broad, with mountains to right and left, and narrowing to a gorge about three miles in front. Mountains on the left have snow falling upon them. At 4800 paces reach the right side of the valley, which declines to the North : a stream arises from a bed of melting snow, direction N. 65 E. At 5240 paces a second bed of snow. Middle of valley stouy with two currents of water. Animals of a fawn colour, about twice the size of a rat, without a tail, and having much longer ears than rats; Q. Marmot*? They burrow in the ground, and seem to associate with a smaller species of the same form and general character, but of a much darker colour ; perhaps younger ones only. One of this sort was shot yesterday, being taken for a young hare, which it resembles in its mode of jumping and sitting on its hind legs. At 5551 paces the valley narrows to 600 yards; surrounding hills said to contain gold, which is sometimes found in lumps of considerable size. At 9786 paces encamp ; at 11 A. M., cloudy, high wind; begins to rain; afterwards hails, and this alternately with strong wind till sun-set, when the atmospbere clears and the wind falls.

[^16]July 16 th. -Thermometor at sun-rise $34^{\circ}$; our tents frozen. March at $6^{\text {h }} 45^{\prime}$ along the left bank of the stream which we followed yesterday; saw close to our ground a large pair of horns attached to a skull, which I supposed to have belonged to the Baral or wild sheep, but was said by the $U^{\prime}$ niyas to be an animal called Douga. At 1905 paces large fragments of frozen snow fallen into the water from the rocks, almost choaking up the channel, which is not above seven yards broad. The frozen snow, or rather ice, when broken from the edge of the projecting banks under which the water flows, divides into pyramidal or conical nails, the small part downwards. Red stones, something like cinnabar of antimony, with black shining crystals, interspersed through their substance. Large lumps of green granite glazed over, in parts with a kind of green glass, in the bed of the stream. At 2000 paces enter into a narrow defile of frozen snow, which the stream has cut through and deserted. A ledge of about eight feet thick, is suspended to the rock at each side, leaving a narrow passage between them, 94 paces long; at 9435 paces came to another defile of ice. At 3490 paces, rhubart plants in plenty. At 6375 paces our stream joins another ; and the road leads to a plain, on which were two wild horses, and a prodigious number of hares. At 8025 paces reach the bed of a clear, broad, and rapid, but not deep river; plain dug in many parts for gold. Having crossed the river, and reached our ground at 1 P. M. and 11,962 paces, we encamped.We killed this day one hare, and two grouse, or birds of this class, of a fawn colour, feathered legs, broad feet, covered with a pad of horn, divided into many points, like shagreen, and having two long thin tail feathers. This river, which rises near Gongre, goes past Ghertope, then close to Latak or Laddk, and is said likewise to proceed to Bokhara, where probably it falls into the $A$ mmoo, Djihon or Oxus. The mountains on each side of this valley or plain, which is about five miles across, dip much to the N. W.

July 17 th.-Thermometer $39^{\circ}$. lce or water near our encampment. Saw some Brahminí geese * and small shrikes hovering over the river. At 336 paces ascend the foot of the mount, ranging with the river, which runs about eighty yards to the left. At 1360 paces, the plain is divided into an upper step about two miles broad, and a lower one, in which is the river following the middle of the lower step or valley, and about a mile in breadth. Many wild horses on the upper step. At 3200 paces myriads of small flies, very troublesome. At 4205 , road very uneven from hillocks and hollows. The surface of the ground covered with salt. At 5790, the various currents which divided the valley unite and form a large and clear stream, of considerable rapidity. At 6000, a very large but dry water-course leads to the river. At 8600, a valley opens from two to three miles broad, and covered with large pebbles. Heat very great. At 11278, come to five currents of a river, which we cross. This river rises from mountains covered with snow lying S. 75 E., and falls into that just mentioned. Ghertope, formed by some black tents, at a considerable distance, bears from hence N. 5 E. The intervening plain, and indeed as far as the eye can reach until it is bounded by a pass to the N. W., is covered by prodigious bodies of sheep, goats, and yaks, amongst which is a small number of horses. The number of cattle cannot I think be less than 40,000 . At 14,000 paces reach the town, or rather assemblage of tents'in clusters, made of blankets surrounded by hair ropes fixed to stakes. Over the tents are variously coloured shreds of silk and cloth as flags.

We had only just pitched our tents, and arranged our baggage, when a messenger arrived from the Déba and Wgzir, desiring us to pay them a visit to-day, and we should proceed to business the following day; the terms

[^17]of the message were too pressing to admit of delay, accordingly we proceeded to the house of the Déba with our presents. It was enclosed by a fence about four feet high, and surrounded by the same litter of bones, horns, and scraps of wool, that we had remarked at Dábá. After entering an enclosure, we stopped a few seconds at the close of a small yard, in the front of which were some matchlocks and bows and arrows, piled in a kind of guard-house; and we were desired to go through a low door into a room, about twenty feet long. At the opposite end, on a raised bench of earth, covered with a carpet and cushions, sat an elderly man, bare-headed, and clothed in a greasy yellow damask gown. This was the Déba. On the right hand from the Déba was a dark complexioned person, who was his younger brother; and on his right again, a rather fair young man, who was the son of the late Wazir, and now shared the authority of government with the Déba. The Déba had rather a shrewd countenance. His brother had a sullen expression, and was ill-favoured. The young Wazir had a pleasing face, of the Tatar kind. We had cushions placed on the side of the room, opposite to the young men; and our attendants with those of the household occupied the lower parts of the chamber. Some conversation passed through the medium of our interpreter, which turned upon our usual place of dwelling, and the articles we had brought with us, of which an inventory was handed to the Déba, and after being looked over by him, given to the Wazir. The apartment was built of sods. The roof was flat, made of branches of trees laid across, covered with sods, and having a square hole near the centre, which answered the double purpose of letting in light and giving vent to smoke: the sides of the room were hung with dirty yellow silk. On the right hand of the Wazér were two dogs. The Déba sat at the upper end of the room on a platform of sods two feet high, covered with an old carpet, on a cushion faced with China satin. Before him was a little long table, on
which a box, with barley-meal, a blue and white large Chima tea-cup, a thing like a small lead tea-canister, used as a spitting pot, and a greenish jasper tea-cup, less than the other. This latter was frequently filled by a boy, from a large earthen tea-pot, with a pale-coloured lid; apparently cold. Superstition in eastern countries attaches to jasper cups the property of splitting, if poison be put into them ; and this trait, at first blush, does not speak in favour of the morality of our Tatar friends.

Over his head, to defend him from the earth of the sods, or other annoyance, were two or three pieces of common chintz, and at the right comer was a stmall square apartment, made by a chintz curtain, in which was a light; as the Déba lighted his pipe from a chafingdish of charcoal, which was on the floor, I suspect hith to be a worshipper of the sun and fire; and this suspicion is strengthened by the long hymns, which our attendants chanted on the road, at the first appearance of that luminary.

Our interview was very long; but it was easy to see that the impression of our being either Gorkhas or Felings, (so the Tatars call Europeans) wore off either by the representations of the Ddbia of Ddba, or by the weight of our presents. Particular inquiry was mede for pearls, and cups of crystal. Round the Déba's neck was a string of beads, thick in the middle, and squeezed in at the ends; each bead about an inch and a half tong of a black substance resembling elastic gum, and marked with a deep circular impression made by a kind of seal. At the bottom was a small oblong-rounded gold box, with a little turquoise stone in the middle of the lid. In each ear he had a long pendant, consisting of a large pearl, between tows of small turquoise stomes set in gold. All the three persons mentioned had on their tail, which is twisted from thiree plaits, a geld circular otnament in lieu of a rosette. This is generally larger tan aerown-
piece, half an inch thick, with a raised edge defended by very beautiful fillagree work, enriched with some decoration of the turquoise. This is really an elegant trifle, and with the exception of a dagger case, and an etui for long iron sticks to clean the throat of their tobacco-pipes, was the only real decoration betokening taste, I have seen in the country.

July 18th.-This morning we displayed our goods as detailed in our inventory. After we returned, a Cashmirian Vakil from the Rajáa of Laták sent word that he was ready to buy our goods, if the Deba did not close with our terms. He said that he should beglad to open a commerce with Hindístan for goods of that country in exchange for the productions of Laták. That place, he said, was about sixty c6s or ten days' journey from Ghertope, and the same distance from Cashmir. He mentioned a place called Baschar, twenty days' journey from Latak, and ten only from Bokhara. The road through Cabul, from Dehli to Bokhara, he represented as very circuitous. From Amritsir to Laták the journey was from twenty to twenty-five days, and the best season for it was the hot weather or the rainy season, but it would be preferable to go in the former, and return in the latter period. He purchases shawl wool on advances at thirty negts per rupee; the first quality sells in Cashmir at twelve negis, and the second fifteen regis per rupee. The best wool comes from the neighbourhood of Ouprang Kote, near Mánasaróvar.

July 19th.-The Latdkis, as well as the $U^{\top}$ niyas, are not able to grow grain enough for their own consumption : but are supplied by the inhabitants of the hills. The U'niyas procure their grain from the Jouaris, the Marchas, and other traders, through the passes as far as Baschar, the Latakts from the Cashmirians.-The supply of grain is highly important to the $U^{\prime}$ miyas, as they live on barley-meal and rice, which they eat with
their tea. Animal food seems to constitute only a small portion of their diet.

The shepherds are now beginning to shear their sheep and goats. Jouari and Baschar merchants are purchasing sheep wool, which they manufacture into Pankis and blankets; and those from Latak are collecting the shawl wool; I purchased a small quantity of the latter, at the rate of twenty-five negis per rupee. The Latakis require thirty. The Déba hinted that he might be disposed to give twenty ; and this in the beginning it may be prudent to take, until a footing be established. It is important to shew, that he will receive more advantage by dealing with our agents in future, than with the Latakis. These have some shawl goats, but not in number sufficient to supply the Cashmirian market. However, if a portion of the quantity raised in $U^{\top}$ ndés, can be diverted from the usual line, they may be compelled to keep more goats themselves. Still without much success, as the cold is not so severe in the neighbourhood of Latak, as to the eastward, in which direction the mountains are higher, and covered constantly with a large quantity of snow.

July 20th.—At a little distance from us, and close to the river, two people are engaged in preparations for making paper. They have two large bags of old paper; that has been written upon, and manufactured from the bark of the root of the Latbarua, formerly mentioned. A few large flat stones are placed near the edge of the water, where a portion of the stream has been divided from the main current by a low piece of sods. On the grass are two frames of wood, covered on one side with fine cloth, and the other is open, forming a shallow tray. The workmen begin by dipping some of the old paper in the water, then beating it upon a flat stone with a small round one, till it is reduced to a pulp. One of the trays is then placed in the broad part of the canal, leaving a space for the water to run under it. The pulp is put into
a geer pump with water, and worked into a paste; it is then poured on the cloth, and as this is sunk two or three inches in the stream, the water rises through the cloth into the tray, and, mixing with the pulp, dilutes it. The impurities, which swim, are picked out, and the pulp agitated by the hand until it is supposed to be sufficiently clear, when the current of water is lessened. The workman sees if the cloth be equally covered with pulp; and if any part look thin, he stirs the water with his finger immediately over another that is too thickly covered, and raises a cloud of paste which his finger leads to the thin spot, and by making a little eddy, the motion of which he gradually diminishes, the pulp is made to subside. By a repetition of this simple process, the sheet becomes of an equal thickness throughout: when it is carefully raised out of the water and placed horizontally on the ground to dry, till the greater part of the moisture is drained - off, when it is gradually raised, and when nearly dry, the frame is set upright: when perfectly hard, one corner of the large sheet is raised from the cloth, and the whole detached by the hand. However, this paper is very inferior, as to evenuess, to that made in Hindustan.

July 21st.—At about ten o'clock we were visited by three Tatar musicians from Laták; one played on the hautboy, another on drums, and the third sung and danced. The airs were very similar to those of the Scotch; and the tones of the hautboy resembled strikingly those of the bagpipe. This instrument had eight holes for the fingers, and one for the thumb, with two reeds, and a metal tube, with a broad flange concave upwards and convex downwards, in which the reed was inserted.-The reeds were tied together with a piece of string about two inches long, that the loose one might be ready to be changed instantly. The musicians began with an overture not unlike that of Oscar and Malvina, as far as comparison may hold between the execution
from two instruments, and that of a full band. They then sang the words without music, and so went on with the instrumental and vocal petformance alternately.

The Déba and Wastr made their present, consisting of two large trays of rice, one coarse, the other fine; three lumps of butter, sewn in skins, and eight sheep. The butter was pancid, a eircumstance which in this country does not lower its value. The exhibition of the articles of my small medicine chest, and of same surgical instruments, appeared to give much satisfaction; and both the Ddba and Waxir were pleased with a few drope of oil of peppermint on sugar.

22d.-This morning I received a message from the Deba to visit him as soon as possible. He proposed a new rate of valuation for the coin, in which our advance for wool had been made to him. This proposal was a gross roguery, as we had weighed the rupees and foand that one of them was equal to $4 \frac{1}{\$}$ Laták Timushas, and had ascertained the goodness of the silver. He hed too, of his own accord, offered to allow that rate. I told hime, that we had placed the fullest confidence in his honour, and had considered the bargain of the day before as binding on both parties : however, we were in his power; and we wished him to receive the twenty-five rupees, which would have arisen out of the transaction, as it at first stood, in the light of a nasar. I declined giving five Sirinagar Timdshas, in lieu of a rupee, as 1 had been informed that the Déba alone refused them, and, probably, through the influence of the Latikt merehants. During the arguments on this subjeet, the young $W$ andr spoke to the Deba several times in an under voice, held down his head, seemed confused, abashed, and ashamed of the trick played by the DEba. The latter, obviously pleased with having carried his point, said, that heretofore no shawl wool had ever been sold exeept to Eatalk merchants ; that there was an ander of government iaflict-
ing the loss of his head on any man that should sell this wool to any other person ; but that in consequence of our having come from a great distance, being, as he was fully aware, persons of consideration, and as he was pleased with our conduct, he had departed from the general rule, and had put us on the same footing with the Lataikis: that we should, in future, be placed on the same terms as they s and he would engage that no third person should enter into competition with the two parties for this article. I expressed my satisfaction with his promiser, and begged that he would give me a list of the things he might be likely to want from Hindustan, as the Europeans sent many articles of great utility and beauty to that country. He said, that a sword, and large pearls of a rose colour, pear shape, and free from flaws or irregalarities, would be most acceptable. He gave me a drawing of one, which probably would be worth 2000 rupees, and which he valued at 3 or 400 . After our commercial affairs were thus settled, he said that we could not have permission to go out of the usual road from Ghertope to Mánasarbvar, or to stay more than one of two days at that place. Thence we were to proceed to Gangri, afterwards to Hienlung, to take up our wool, then to return to Dabba, and enter the territories of the Gorkhas by the Niti pass. I answered that we were ready to obey, to the utmost of our ability, the orders which he had prescribed; but that it had entered into our pilgrimage to visit Jwdildmuc'hd, and that by the road of Niti, we should make a round, to which our finances were unequal. He said, that the heads of the Slytinas, who had become sureties for us, should answer for our leaving the country by any other road. I urged every argument that occurred to me, but he was inflexible. He said his own head would be forfeited if he gave his consent to our returning by any other pass ; and that our lives were held by him in equal estimation with his own; but that the case was without remedy. This blow was anexpected and heavy, as it places us in the alternative,

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cither of being exposed to be stopped by the Gorkhalts, or of losing the benefits of the connexion we have formed with the governor of the U'ndés. Amer Singin says that as the Marchas were our security here, so will they guarantee our passing by the Baschar road. To effect this, he says, it is only necessary to go one day along the Niti road when we leave Dabbá, and then striking to the West, with a good guide, we shall reach the Baschar without inquiry or molestation; or if we dislike this plan, we may go to Niti, and make an arrangement with the Mana Marchas, near Bhadrinat'h, to give us a guide. My companion thinks it will be best to go as far as Tapobban, and there striking over the great snowy Tunshst range, gain the province of Budan, and push vigorously for Chilkea. I prefer this, because we can see our cattle safe to Nitk, and make an arrangement then for passing our cattle and goods through the Gorkha territory. The old pundit opines for the Baschar road, and says we shall neither be seen nor heard of by the route which he shall chalk out, until we reach a country in which we shall not be noticed. I rather apprehend that the prohibition has been caused by the inquiries which the old man has been frequently making from Baschar people respecting the state of the road: but, be it as it may, it is clear to me, that if we wish not to furnish to the governor of Ghertope a substantial reason for rejecting future communication with us, we must abide by his order in respect to quitting his country by the Nitt pass.

Mr. H. went to the Cashmirian, and found that he was a Waktl or agent of the Raja of Latak for the purchase and sale of wool. He said that the amount of wool annually bought by the Rajá was between two and three lakhs, the greater part of which was resold to the Cashmirian merchants, who waited for the return of the Wakdl and paid for it immediately. Merchants from Amritsir took off the rest. In speaking of articles of merchandise which were mantetable at Lathk, he mentioned coral
beads, which formerly were brought from Dehli and Benares, and, though exceedingly dear, were resold into Tatary at a great profit. But within the last three years their value has fallen greatly, from the great numbers which have come through Yärkund. These have been brought by the (Ooroos) Russians, who have long been in the habit of trading with that country, and in the course of the last three years have pushed on a lively tratfic into Cashmer through agents. The Wakil said, that the Ooroos had not yet been at Latak; but the Déba of Dába asserted, that kafilahs of 5 or 600 Ooroos on horseback had come to the fair of Ghertope. Now if this latter intelligence be true, the Russians must reach Ghertope by another route than that of Yárkund. The Wakil said that the horses of Laták were much larger than those of $U^{\prime} n d e s$, but that the best were bred in Yarkind, thirty days' journey from Latak, and that Bokhara was fifteen days' journey from Yarkund: Laták is ten or twelve days' journey from Ghertope, and the same distance from Cashmir, and twenty-five from Amiritsir. Thus the road to the N. W. of the HimdLaya from Dehli, would stand thus• from Amiritsir to Latak twenty-five days, Yarkund thirty, Bokhara fifteen; making a total of seventy days; a much shorter distance than that by Cabul.-In this route there are two days' journey, in which no water is to be met with; and for thirty days there is a track without inhabitants; but the road is safe. I must here remark that the river, which goes from Ghertope to Latak, does not proceed to Bokhara as before stated ; but falls into the Attock, or more properly speaking, is the main stream of that river. Neither is it a fact, that Cashmir furnishes Latdk with grain, as was at first reported to me; the latter country having sufficient land in cultivation for producing barley and other grains, except wheat and rice, which it obtains from Baschar. I went this evening to the Cashmirian's tent, taking with me two small bottles of essence of peppermint and of volatile caustic alkali. He received me
with great respect; spoke in the highest terms of the regard shown to medical characters in the West, and of the pleasure he had in our meeting, which he now regretted had not taken place before. His name was Ahmrd Khan, Kazalba'sh, about forty-eight years of age, and of a respectable appearance. He placed before me some fine sugar-candy and a paper of saffron. Looking-glasses of large sizes were, he said, much in request in Cashmir. He was particularly desirous to have a lancet of the same make with one that I had given to the Garpan, but in this I could not indulge him. I drew him on to converse about the Russians, but could learn no more than what has been stated, save that a fow have before been in Cashmir. He brought with him shawls of various kinds for sale; and said that his people, who were not come up, had some of great value in charge. Nobody, he said, could trade at Laték without the direct permission of the Raja. We first supposed, that the Cashmirians came to $U^{\prime}$ ndés for part of the wool they used ; and learning that they did not, were disposed to blame them for want of enterprise. However, -it appears that they have not been permitted to trade directly with $U^{7}$ ndes by the Latakis.-A state of warfare had long existed, with intervening periods of peace, or rather truce, between these two states, in the reign of Mahmud Shah. The Chinese Tatars then invaded Latak whose inhabitants applied to the Caskmirians for assistance. These represented their state to the Emperor who ordered them to send some infantry to their aid. By their help the Latakts repulsed the assailants; and a treaty of amity was made between the conflicting parties, of which one article was that the shawl wool raised in U'rdés should be sold to the Latakts alone. This has since been little infringed upon, except two years ago, when the Joudri Marchas purchased a small quantity on account of Mr. Giclman of Barelly. The Latakis apprized of the transaction, complained to the government of Ghertope, who issued
the rigorous edist before mentioned, forbidding the sale of any except to the Latdkio, on pain of death to the party selling.

93d.-Leave Gikertope ; thermometer $38^{\circ}$ at sun-rise. The night has been frosty. Having taken leave of the Deba or Garpan in the afterncon, and of the Wettr. at night, we prepared to start. The Wazir treated us with much cordiality. He said that in a very short time he should go to Lasea to remain. In his apartment, which was a much better one than that of the Déba, were many trunks, and in the right hand angle was a small platform with benches in front, on the top of which was a brass image, before which a lamp was burning, and grain of various kinds was served on salvers of wood.-On the lowest step were several plain wine-glasses reversed, which, from their clumsiness, I supposed to be of Russian manufacture. He shewed uis the picture of the late Lama, executed in silk; but both the form of the person, and the countenance, announced more of the female tham of -the other gex. This character I have remarked to have prevailed in every portrait of the many different Lamas which I have seon; and were it net that ne mention has been made of this personage having been emasculated, I really should have imagined this to have happened. However, taken out of the hands of his parents in infancy, educated in the entire subjection of the passion of sex, and kept in a state of little lees than entire confinement, with full feeding, it is not surprising, that the features of the face should have little of the virile character, and that the whole contour of the body should contract a fominitie softness undistinguished by the bold variety of swell and fall belonging to a muscuditice frans accustomed to exercise.

At 3985 paces reach two piles of stones, the uppermoost of which were engraved with a chanacter, that appears differen from that in common aoc, and approprimted, I
presume, to religious purposes. The valley here narrows and is bounded by mountains, whose tops are more or less covered with snow, and it takes a winding direction to the left. At 5407 paces arrive at our ground of encampment near some tents, and a considerable herd of yaks with a lock of the finest sheep I have seen in Tatary.-Pleased with the prospect of having my choice from amongst the best collection of cattle of every kind I had seen, I rambled through the whole, and made choice of several female yaks and calves as also of young goats, which however were not equal in quality to the yaks and sheep.

The horsemen, whom I discovered, too late, to be intoxicated, said that they had no orders to allow me to pick out of the flock; but would send for instructions on that point.

24th-Thermometer $44^{\circ}$. At an early hour ordered the pundit, sircar, and interpreter to proceed to Ghertope, and represent to the Déba and $W$ axír, how we had been treated; as also to mention that the horsemen had said, that as they had received only four days' pay, we must travel day and night. We had scarcely determined upon this measure, when the horsemen sent word, that a message was come from the Déba, importing that he would send another draft of each kind; and, if I did not approve of them, I might take back the articles he had purchased. I directed them to offer a higher price for the power of selection; but rather to take such cattle as he should offer, than on our part to break the original bargain. In the evening my messengers returned with eight cows, and the same number of calves, of which four were bulls.

July 25th.-Thermometer $41^{\circ}$. March at $8^{\text {b }} 10$. The river we have left comes from N. $85^{\circ}$ E. The mountains in this thoroughfare for the inost part covered with snow. The breadth of the valley in which the
stream rans, is about 31 miles. Thermometer at 1 P.M. $82^{\circ}$. The road on which we are proceeding seems a great thoroughfare ; many Baschar and Jouari merchants having passed to-day with loaded sheep, goats, and yaks, towards Ghertope.

July 26th-Rain. Thermometer $43^{\circ}$. The changes of temperature in this climate are extremely sudden. Last night the mountains to the right were bare; this morning they were covered with snow. Thermometer in tent $74^{\circ}$, at three P. M. rain; alternate sun-shine, overcast sky, wind, and thunder.

July 97 th. -Thermometer $39^{\circ}$. At noon, all our baggage being dry, commence our march. The river from this spot runs $\mathrm{N} .70^{\circ} \mathrm{W}$. about $1 \frac{3}{4}$ miles, and then takes a turn to $\mathrm{S} .80^{\circ} \mathrm{W}$., and joins the river along which we went to Ghertope. At 4460 paces cross the river three feet deep, rapid, with large slippery stones; water very clear. At 6260, thirteen wild horses grazing to the left. At 7957, came to the bank of the river, which we cross, about $2 \frac{1}{3}$ feet deep, 80 yards broad, and very rapid. At 8200, reach our ground and encamp. The valley well furnished with grass.-Several Tatar tents, and cattle graring.-Much furze on the adjacent hills. River comes from N. 75 E., and runs N. 50 W . for about 18 mile, when it takes a turn to the S. 75 W . and forms one of the principal branches of the Ghertope, supposed to belong to the Attock.-Wind very cold, raining all around. The river rose rapidly, and the Tatar horsemen refused to cross their horses, in order to bring over some of the people who had stayed to conduct our goats and sheep across the river. The yaks were sent in, who stemmed the current. Some clung to the tails of the animals and came over easily; the others, more timid, preferred retreating to some huts at a distance, where the Tatars gave them milk and lodging.-A few drops of essence of peppermint on sugar to the Hindus, and a dram of
brandy to the Musselmans, with strict injunctions that they should run about, and notapproach the fire till warm, prevented any of the persons who had been much exposed to the cold from suffering by it.

July 28th.-Thermometer at sun-rise $44^{\circ}$; obliged to wait until ten o'clock, before the river had sunk sufficiently to admit of the men, and a few goats which wene left, passing over. At $1^{h} 90^{\prime}$ march. The mountains have the particular red appearance indicating the presence of gold; and though adorned with little verdure, are picturesque in their forms. Cross several small rivulets which come from the left, and fall into several ponds to the right:-air very cold. At 7050 paces reach a pile of stones covered with inscriptions. At 8160, road crosses several dry watercourses, and ascends' to the summit where are two small heaps of stones, over which is a line covered with slips of rags, and supported by two sticks. At 9460 paces cross a rivulet formed by fresh-melted snow. This rises on the left and runs to the right. Reach our ground, 10,066 ; at $5^{\text {h }} 20^{\prime}$ very cold, windy and cloudy.-A storm rises in the N. W. attended with thunder and small hail. Thermometer $47^{\circ}$. Hail changes to rain, which falls steadily till 7 P. M.

To-day I heard a strange, sharp and load noise proceeding from the side of a hill, at the bottom of which the road ran. -It seemed between a bark and a howh, and. expressed much anger. For some time I could not make out whence it came, but, whilst casting my eyes on a furze bush, an animal about the size of a middle-sized dog sprung from a hole underneath it, abont fifty yards up the hill, and after surveying the passengers and repeating his yelping, retreated with precipitation into kis cuve, as soon as he saw me jump from the back of a Chownr. His general colour was a yellow brown. His head was round with small ears, his face burned light and dartyellow, and his tail long.

July 29 th. -Thermometer $97^{\circ}$. At $9^{\text {h }} 45^{\prime}$ began to hail, which soon changed to rain, and lasted until $10^{\mathrm{b}}$. We began our march at $10^{\mathrm{b}} .45^{\prime}$. Mountain on the left covered with snow : many wild horses grazing on the high Table Land. At 16,652 paces reach a branch of the Satúdrá river which I forded here, and again at 16,868 , much against my will, as it was extremely cold; but my yak had played some tricks, which in my weak state of health I did not think prudent to experience more than once. At $7^{\mathrm{h}} 15^{\prime}$ reach Misar, very cold and much fatigued. Thermometer $46^{\circ}$.

July 30th. -Halt at Misar. Thermometer $44^{\circ}$. In the forenoon, 8 yaks arrived laden with shawl wool and accompanied by two persons on horseback-one of these. was an officer called a Nerba, who had received orders from the Garpan to supply the quantity for which we had made advances. The morning was hot, a circumstance in our favour, as the sellers of wool are in the habit of wetting it, under an idea, as they pretend, of its twisting the closer, but more probably to make it weigh heavier. However, after a little delay on our part, that the wool might dry as soon as possible, we had it weighed by a pole with a weight, on the principle of the steel-yard, which the Garpan had sent with us. As more was brought than we advanced for, we agreed to take it, on the principle of encouraging the Garpan to give more another year. The surplus amounted to 38 rupees and 1 Timhsha; and the Garpan had ordered rupees alone to be received, which shewed that he had given directions for more to be brought than we had contracted for, in order to try whether we really meant to purchase, or used the plea merely in his presence to mask other designs.At this place we found many Jouldi and Dhan merchants, who were troublesomely inquisitive as to who we were, what could be our motives for coming, and why we purchased shawl wool. The sight of some of our wares seemed to convince them, that we were what we appeared
to be. I consider this day as the epoch at which may be fixed the origin of a traffic which is likely to be extremely beneficial to the Honourable Company.

Misar has only one house, made of bricks baked in the sun, and 5 tents of goat-herds: it is situated upon a rising ground upon the left bank of a rapid stream, forming one of the branches of the Satudra or Setlej. This stream comes from N. 86. 5 E. and runs down a valley about
 After a course of about $\frac{1}{2}$ mile, it joins that which we forded yesterday.

July 31 st .-Thermometer $34^{\circ}$. Ice $\frac{8}{8}$ of an inch thick. The changes of temperature, so frequent and rapid in this climate, require that the quadrupeds naturally belonging to it should have some very warm clothing, to protect them against theirill effects; and we find that this has been very liberally bestowed by nature. The sheep has a very thick and heavy fleece; the goat has at the root of his long shaggy hair a very fine fur interpersed generally ; the cow has a material of the same kind, not much inferior in warmth and softress, which I apprehend might prove a substitute for beaver; the hare has her fur of peculiar length and thickness ; and even the dog has a coat of fur added to his usual covering of hair.-The wild horse (Equus Quagga**), the wild ass (Goorkhen, Onagre), and 1 believe the mule, the offspring of these animals $\dagger$, are found in abundance on the mountains of Tatary; but whether they have any thing of the fur kind I cannot say; but that animal, which is here called the Baral $\ddagger$, and which seems to have many characters of resemblance to the deer as well as to the

[^18]sheep, has certainly at the bottom of the brittle hair of the former the most beautiful brown fur I ever saw.

This morning the Nerba came to take leave of us, and as his behaviour had been uniformly attentive, I was desirous of shewing him that we were sensible of it, and accordingly gave him a double-bladed knife and my sword. The latter was, in fact, no great gift, as it was bought at Najibabad for three rupees, and was intended solely for the journey. He was, however, highly pleased with the compliment. His name was T'har-chand ; and he said, that he was in the suite of the Wazir, and should accompany him to Lassa. He wore a pendant in one ear, in which, along with rows of small turquoises, the never-failing ornament of this part, was a large irregular pearl, such as are in high request in this country, on account of their size. These I understand are brought to Calcutta, in considerable numbers during the rainy season, from the Lackadive islands, and sold at a very easy rate. The Nerba's outer garment was woollen, of green, red, blue, and yellow narrow stripes, manufactured at Guinak; under this were four other garments; and both men and women constantly load themselves with several vests to prevent suffering from the cold.

On the back of this habit, and on the right shoulder were sewed the saw, adze, chisel, rule, and all the insignia of Free Masonry in iron; the symbols of a fraternity, of which he said he was a member. I purchased from him some gold-dust at the rate of 40 Sirinagar Timdshas for the Fitauk of 7 Mashas. The Nerba appeared to have gold-dust to the amount of about 5000 rupees; and it was understood, that every person, willing to become an adventurer in the gold mines, pays to the chief of the district one Fitauk as an entrance fee, and all lumps above a certain weight. This occupation is more profitable here, than in most other places; as though the gold-digger works only three months, he expects that the
result of his labour should keep hin the whole of the year. Leave Misar at ten A. M., having loaded our wool upon the yaks which brought it, and for the hire of which the Nerba would receive no gratification; the first instance of disinterestedness I have witnessed in this country. At 4500 paces enter Tirtápúri. At 4525, pass several piles of stones inscribed as is usual, and some figures carved in stone and painted, Reach the summit of the height at 4575 paces and encamp.

Tirta' $\mathrm{PU}^{\prime} \mathbf{R 1}$ is the residence of a Lama and several Gelums, who live in separate houses made of rough stones, and follow a pastoral life. It is perched upon the top of an eminence, about 200 feet higher than the plain, and has Table Land running from it eastward. Steep, craggy, lime stone rocks in a state of decomposition immediately overhang it, threatening some of the houses with destruction at no distant period. Insulated pillars, which have resisted the influence of the weather longer than the softer portions of stone by which they were surrounded, seem upon the very point of falling; but apparently give no alarm to the inhabitants.-Still higher, and losing their heads in the clouds, are pointed mountains, whieh from their brilliant whiteness, appear to consist of chalk, covered here and there with a layer of yellow ochre. Immediately at the foot of the rock, on which the buildings stand, runs a very rapid stream, which is said to proceed from a lake at the foot of the Himalaya, called Raiwanhrad, and to constitute the principal branch of the Satudrd.

To the west of the town, and about a quarter of a mile distant, are the hot springs, forming one of the most extraordinary phænomena, I have ever witnessed. From two mouths, about 6 inches in diameter, issuetwo streams, bubbling about 4 inches higher than the level of the stony substance whence they escape. The water is very clear, and 80 hot, that the hand cannot bear to be put into it for mo instant; and a large volume of smoke curds round
them constantly. They burst forth from a table of calcareous stone nearly half a mile diameter, and raised in most places ten or twelve feet above the plain on which it stands. This has been formed by the deposit from the water of the springs whilst cooling. Immediateiy surrounding the springs, the stone is as white as the purest stucco. The water flowing over a surface nearly horizontal, as it escapes from the vents, forms shallow basins of different size and shape. The edges of all these basins are curiously marked with indentations and projections, like the tops of mushrooms and fleurs-delis, formed by calcareous matter prevented from uniting in one uniform line by the continual but gentle undulation of the water ontering into and escaping from the several basins which are emptied by small and successive falls into the surrounding plain. By degrees, however, the fringed edge becomes solid, and contracting the basin, of which the hollow fills likewise, the water takes a new course and makes new reservoirs which in their turn become solid. Although the water appears perfectly transparent, the calcareous earth, which it deposits, is of different colours; in the first instance, near the mouth, it is delicately white without a stain; at a little distance it assumes a pale straw tint; and further on, a deep saffron hue: in a second the deposit has a rosy hue, which, as it recedes from the source, becomes of a deeper wed. These various colours are deposited in the strata, which hardening, retain the tinges they received when soft; and give rise to variously stratified and veined stone and marble. The whirls, twists, knots, and waves, which some of the fractured edges exhibit, are whimsically curious, and shew all the changes which the stony matter undergoes, from soft tufa to hard marble. I observed that the marble is generally formed in the middle of the depth of the mass, rising up with nearly a perpendicular front of the height beforementioned; the table must have been the work of ages. The calcareous matter, which is so largely dissolved and suspended by the water whilst hot, is probably fur-
nished by the chalky mountains above Tirtápiri, but the origin of the heat, I have no clue to discover. The water must be most strangely situated, for two streams so inconsiderable to throw down such a prodigious quantity of earth; and the surface where quiet is also covered with a thin crust of semi-transparent matter like that which rises on supersaturated lime-water.

At this place, I left the wool which I had obtained at Misar. The Lama was absent when I took the liberty of depositing the wool in the verandah of the temple of one of the deities; therefore it remains to be seen, should he return before I do, how he may approve of this step. However, from what I have seen of the priesthood here, they are an inoffensive class.

Nearly opposite to his house, is a broad wall of stone, 150 yards long and 4 feet broad, covered with loose stones inscribed with prayers. The length of time which must have elapsed, before such an extent of surface could have been so decorated by the hands of pilgrims, shows the great antiquity of Tirtapuri. There are many little Maths having niches in one side, in which are impressions, in unburnt clay, of Lamas and deities, and on some of the piles of stones are figures of Lamas, of Nárayan, and of Bhasmásúr, carved on large flat pebbles.

August 1st.-Thermometor $40^{\circ}$. Leave the yak, cows, calves, and my goats.-Commence our march at 10 A. M., meet a party of Unias going with several loaded yaks to the fair at Ghertope. The manes of the yaks were died yellow with the Geru earth. At 12,800 paces come to our ground and encamp in a green pleasant spot, in a hollow surrounded with many springs, at $4^{\text {b }}$ $30^{\prime}$ P. M. At 8 P. M., Thermometer $46^{\circ}$.

August 2d.-Thermometer $32^{\circ}$. A severe frost during
the night:-ice a quarter of an inch thick over standing water. March at $10^{\mathrm{k}} 20^{\prime}$. At 10,825 paces a large sheet of remarkable blue water, at the foot of the mountains to the right, called Ráwanhrad, said to give rise to the principal branch of the Satúdra, and to communicate by ariver with the lake Mánsarbwar, named by the natives Mapang. Rawanhrad bears S. 25 E. distant 8 miles. At 16,827 paces halt and encamp at 5 P. M. At 7 P. M. thermometer $47^{\circ}$. This day we saw more wild horses than on any former one, also several wild asses of the kind called Gúrkhar, and likewise I believe some mules. The asses are a little less than the horses. Saw likewise Barals and many yaks.

August 3d.-Slight frost, thermometer $34^{\circ}$. March at $9^{\text {n }} 50^{\prime}$. At 7287 paces, cross a stream over a wooden sankhoo. At 7325 encamp on a high spot. This is Gangri or Darchan. There are four houses of unburnt brick or stones, and about twenty-eight tents, amongst which that of the servant of the Lataki agent is apparently the best. Sixteen years ago, the old pundit says, this was a place of consequence. There we find many Juari and Dhermu merchants with grain, and three tea merchants, who say they are acquainted with Pekin which they call the capital of Maháchin: but they themselves reside two months journey beyond Pekin. Tatars of the districts we have seen, wore their hair plaited : these people had it cut all round, so that it hung low and loose in their necks, and they wear coats of kid skins made soft by rubbing, and the hair turned inwards.

A cascade issues from the rocks just above Darchan, and falls into the Rawanhrad, which is supplied by the melting of the snow on the great mountains at the foot of which it is situated. It is said to surround a considerable extent of mountains, insulating them completely; but this, being the relation of natives, is to be received with caution.

August 4th.-Thermometer at $7^{h}$ A. M. $57^{\circ}$. We were resolved to stay here to-day to recruit my strength, which stood much in need of it after frequent attacks of illness.

August 5th.-Thermometor $43^{\circ}$. Leave Darchan or Gangrt at $10^{\mathrm{h}} 90^{\prime}$. At $\mathbf{2 6 7 5}$ paces cross a stream which in five or six branches comes from the Cailhs mountains and disembogues itself into the Rásoanhrad. At 19,935 paces reach the top: see a fine looking wild borse.-Descend to five tents: a wild ass grazing close to us, and a prodigious flock of sheep and goats. The lake of Mansarobvar or Mapang now appears at the foot of a long declivity of pasture bounded by immense mountains towards the South, and, having in front terraces of stone with the usual inscriptions, and a house inhabited by Gelums.

August 6th.-Halt on the bank of the lake Mansarbwar. Morning early, thermometer $47^{\circ}$. This lake is considered as the most sacred of all the places of worship in the opinion of the Hindus, founded probably on the difficulty of access to it, not merely on account of its distance from Hindiustan, and the ruggedness and dangers of the road, but from the necessity of every pilgrim carrying with him money and provision, which latter he must occasionally eat without any preparation on account of scarcity of wood. Few Jogis can afford the expense of this journey; and I met with two on the road, who must have returned for want of funds if I had not bormo their expenses. The name is derived from Man* and sarbovar, a Sanserit word signifying a lake. The story upon which this appellation is founded is related at great length in the Sastra. Why it is called Mapang by the Unias or Chinese Tatars, I have not beem able to

[^19]learn : but it is considered by them an act of religious piety and duty, that the nearest relation of a dead person should carry a portion of the ashes of the deceased, and empty them out of a small bag into the lake, as is practised at Hardwadr.

Hindu geographers have derived the Ganges, the Satridrd and the Kalk or Gogra from this lake; and as I believe no Europeans ever before visited it, I was anxious to ascertain whether it really gave rise, to the two last mentioned rivers or not.-As to the former, it is quite clear from the observations made in this journey, coupled with those in the trip undertaken at the suggestion of the late Colonel Colebroore, by Messts. Raper, Weyb, and Hearsay, that the Ganges derives its supplies from the melted snow of the mountains of the Himalaya, and a thousand small streams, which fall into its various branches during their pessage from these stupendous rocks, to the great common mouth at Hardwár : and that it does not receive the smallest streamlet from their extreme Northern face, nor from a source to the Northward of them.

Harbaleabi, the old pundit, reported, that near the South-western corner, a river issued from it, which frowing in a westerly direction went along the Rdwanhrad, and escaping from its Western extremity near the foot of the great mountain, formed the first branch of the Sethej. Yesterday evening I mounted upon a very high bank, and thought that I perceived distinctly the whole of the line of the shore, without seeing any outlet, with the exception of a space near the $S$. W. angle which a projecting rock concealed from my view. Determined not to leave this point in doubt, I took a fishing rod and gun, thinking that I should have time to amuse myself a little in one or other diversion and retura by the even-ing.-At about ten I began my march; and, although very weak from the frequent attacks of fever to which I
had lately been subject, I felt confidence that I should accomplish the object without any material degree of fatigue.-As we were encamped about the middle of the northern side, I walked along the shore towards the West.-The beach was formed of fragments of stones rounded, and thinned when of small size, by the continual action of the waves: but in some places great masses of red and green granite, marble, and lime-stone, had fallen from the face of the rock, which in many parts was 300 feet perpendicular. These stones, frequently washed by the surf, and glazed by the sun, afforded a very unsafe footing: however, at this time it required only care to prevent falling, which would have endangered a limb, as some of the spaces. betwixt the stones were very deep. The steep bank was here and there cut by profound and precipitous watercourses, now dry; but occasionally serving to convey the snow-water from the high tables upon the head of the bank into the lake. The front of the bank at the height of from ten to thirty yards, had houses of loose stones and wood built in recesses upon ledges; but, as there were no stairs to them, I thought them inaccessible to human beings, except by means of ladders, of which I saw none. They were inhabited, as I beheld smoke issue from many, and are I presume the secluded retreats of monastic recluses of both sexes. One of these nuns accosted me by the name of Guni Lama, and returning along with me, pointed to one of the rock habitations, which I concluded to belong to her, and appeared by her gestures to invite me to it. However I was so ungallant as to refuse the lady's hospitality : for I cannot suppose that she had any other motive for her civility than to offer me refreshment, or to ask charity, the disposition to which, the view of the inconveniences she was subjected to, by such a lodging, might possibly excite. A weather-beaten face, half stripped of its nartural covering by the joint action of a bot sun and cold wind, blistered lips, a long bushy beard, and mustachios, in a country where the former is carefully plucked out,
with a gait not of the firmest, had probably raised emotions of pity, and induced her to think I might stand in need of repose. Be it as it may, with the most cordial salutation and expression of thanks by dumb show, I took my leave, and went on with my survey.

After an hour's walk, the beach changed to a deep sand, in some places pure and in others mixed with pebbles. That on the water's edge was bordered by a line of wrack grass, mixed with the quills and feathers of the large grey wild goose, which in large flocks of old ones with young broods, hastened into the lake at my approach ; and though I fired several times with buck shot, few took effect, from too great distance. These birds, from the numbers I saw, and the quantity of their dung, appear to frequent this lake in vast bodies*, breed in the surrounding rocks, and find an agreeable and safe asylum, when the swell of the rivers of Hindústan in the rains, and the inundation of the plains, conceal their usual food. Many aquatic eagles perched upon the crags of rock; and several kinds of gulls skimmed along the skirts of the water. An unusually large body of great black gnats along the beach rendered walking troublesome, from their aiming to get into the nose, mouth, and eyes: but, when the wind lulled, which it did for half an hour, they flew along the surface of the water, and became the prey of a kind of trout without scales, which rose at them with extraordinary voracity, and with which the water seemed to be literally alive. I hoped by rounding the N. W. corner to have had sport by throwing across the wind ; but it then suddenly chopped about, and a heavy surf beat upon the Western shore. As the bank approached this angle, it declined to gentle elevations, leading to inter-

[^20]rupted Table Land, and at its base was a large bay, from the bottom of which rose a pyramidical red rock, connected with a line of ridge of high land to the higher flats to the North, and steep towards the South. Upon this was the house of a Lama and many Gelums, pitched in situations which produced a romantic effect, not a little heightened by streamers of various coloured cloth and hair, floating from high poles fixed from the corners and roofs of the houses. Leaving this and diverting my steps to the South, I went along the base of granite rocks amongst such troublesome, rugged and slippery stones, as had interrupted my progress in the outset, till I reached a high, level, and firm bank, which separated the water of the lake from that which accumulated by the slope of the surrounding upland, directing the melted snow into it. At the end of this natural barrier, I saw a point of rock running into the lake, from the top of which I flattered myself, I should have a prospect that would command the whole of the shore to the $S . W$. corner, and put an end to a task which I now found somewhat too much for the little strength I possessed.But I was severely disappointed: for on mounting a steep hill, of which the point in question formed the front to the lake, another large mountain intervened to prevent my view, with a deep valley between it, and that which I had too hastily concluded would finish my labour. When I had reached the summit of this, another equally high presented itself. My servants were much fatigued; for my own part, I was obliged frequently to lay down: and it was four o'clock when I reached a small religious pile, whence I got a fair sight of the shore I was so anxious to see, with the exception of a very small portion that was intercepted by the projection of a high bluff anigle starting into the lake: unable to proceed from the aching of my limbs and intense thirst, which I could not gratify, I sent a trusty harkarah to explore the angle which was concealed from my sight. The sky, which had frequently been overcast and disturbed with violent gusts
of wind, now became clear, and sunshine illummated the whole of the circumference of the lake, so as to enable me distinctly to define every portion of its shore close to the edge of the water, and up to the foot of the mountains by which it is embayed, with the exception of the point to which I had directed the harkárah to proceed: there were numerous traces of watercourses leading into it, the most important of which was the Krishna asweeping down a ravine between two high mountains of the Himalaya range, and expanding like a sheet as it approached the verge of the lake; but not a break, nor any other appearance indicated the escape of any river or even of any small stream from it.Although this was clear enough to the naked eye, I employed a telescope; and this as well as the evidence of two servants who gave me an account of what they saw, shewed that the Múnsarónoar sends out no rivers to the South, North, or West.

At half past four I began to return, and descended to the shore, which was a bed of round pebbles that had fallen from the side of the mountains. Large masses of these stones, imbedded in a hard cement like old firm mortar, in scme places obstructed the path, which apparently was more used by yaks, than trodden by the feet of man. I was in hopes that I should be able to reach the N.W. corner before the fall of night ; and by ascending the high Table Land, that formed the summit of the Northern bank, avoid the deep sand and dangerous stony beach which I had traversed in the morning. Walking upon a flat surface, in some degree relieved the active aching and spasms of the thighs and legs, brought on by great exertion in climbing and descending, but did not take away the soreness of the muscles. However I laboured to the utmost extent of my power, but was much impeded in my progress by a strong wind which poured into the lake with vast impetuosity from the West, and rendered breathing difficult. Since morning the wind
had shifted four times, and had only been a little still for half an hour. In spite of all my endeavours, I could not attain the granite rocks to the $S$. of the Lama's house, before night came on; and by another sudden change of the wind, the surf was thrown so high on the shore, as to efface all traces of the path, and leave scarcely room enough to pass between the face of the rock and the water.-In a small recess we lay down for a few minutes; and as I had not seen the surface of the high land on the North, and the night was dark, I thought it, on the whole, more advisable to encounter the fatigue of wading through the deep sand, and the risk of injuring our legs and feet amongst the stones, than have the chance of falling over the precipice of the rock, or into any of the deep ravines by which its surface was broken. But there was another inconvenience, that was unforeseenandvery annoying. The wind had put in motion the dry sand on the western extremity of the northern shore, and this rose into our eyes and almost blinded us.-The servants who were with me, had eaten nothing since the day before; I had only taken a cup of tea in the morning; and, though in health, they were little less exhausted than myself. For my part, from the violent pain in my limbs, and the singularly accelerated action of breathing, I was compelled to sit down every ten or fifteen minutes; and was in one of these halts overtaken by my harkarah, who reported that he had gone nearly to the foot of the Himalaya mountains covered with snow, and had not seen the smallest trace of any river issuing from the lake. At half past eleven, benumbed. with cold, and completely overcome with fatigue, I reached my tent, where a cup of warm tea - was a most welcome refreshinent.

August 7th.-Thermometer $49^{\circ}$. Found my eyes inflamed; and observed that those who were with me, had also suffered in the same organ. Sent for Harballabi, and observed to him that the river which he had crossed on Sankhos sixteen years ago, did not, as he supposed,
proceed from Mansarbwar, but from some part of the Himalaya to the west, and taking suddenly a western course, fell into Ráwanhrad, and led him into error on this point. He was very positive on the subject ; said he could bring the evidence of all the inhabitants of the neighbourhood in support of the truth of his assertion, and that my harkárah had not gone as far as I ordered him to do. To settle this matter, the same harkdrah, and Har Deo, the young pundit, were directed to proceed as far as the south-west corner. At half past eleven at night, they returned much fatigued, and suffering from the cold.-They stated, that they had gone beyond the south-west corner, and within 500 paces of the Krishna river on the south side, without finding any appearance of a river issuing from the lake, or of any former bed of a river which had escaped from it. The distance of the Lama's house from our encampment was 3521 paces; from the former place to the foot of the mountain, from the top of which I made my survey, 12,500 paces: they went 5000 paces farther, making in the whole 21,621 paces, or about eighteen English miles; which, doubled by their return, made their day's journey thirty-six miles. According to their calculation, my journey consisted of twenty-four miles: but adding the crossing of the hills, it may fairly be estimated at three more. The distance altogether is but trifling; yet the circumstances of my weakness from previous illness, the badness of the road, being benighted, \&c., rendered its performance very distressing.-However, the fact of Mansarówar giving rise to no large river, has been ascertained by it. The old pundit remained much dissatisfied with the decision, and a Latákí traveller asserted, that eight years ago the stream, which he mentioned, actually existed; and that it since that period dried up, and the bed has filled. Perhaps an earthquake may have been the agent in this effect. I believe the period assigned tallies with that which was so mischievous at Sirinagar ; and it might have extended to this place.

Mánsarbivar or Mapang, of which we had no means of ascertaining by astronomical observation, the exact geographical situation, is bounded on the south by the great Himalaya, which pours its liquified snow into its basin ; on the East by a prolongation of the Cailhs ridge; and on the north and west by very high land under the form of mountain, table, ravine, and slope, all declining towards it. In form it appeared to me oblong; the sides of the east, west, and south, nearly straight: that of the north, and especially to the north-east, where there is a plain at the foot of elevated land, indented, and irregularly tending to the east. The angles were not sharp, or its figure would have approached nearer to a square than any other; but it may be considered as an irregular oval. Its breadth from south to north, I estimate at about eleven miles; its length about fifteen. The water, except where disturbed by the wind near the beach, where it is sandy, is clear and well tasted. No weeds are observable on its surface, but grass is thrown upon its banks from the bottom.-The middle and sides farthest from the spectator reflect green; and, taken altogether, it has a noble appearance, whether in an agitated or a quiet state. We had, however, but little opportunity of seeing it unruffled; for the changes of temper rature of the atmosphere are here extremely frequent and sudden, attended with great mutability in the wind.Considering the heat of the sun in the middle of the day, the vast bodies of snow on the summits of the neighbouring mountains, which produce their influence when the sun begins to decline, and the breaches and gulleys through the ranges of hills, it is not surprising that there should be an almost continual conflict between opposite currents of air, or that the shifts of temperature should be frequent and great.-At what season this large basin is most full, I could not learn; but I apprehend this must be the driest season, as the greatest part of the watercourses which I saw were dry. But I found no appearance of water-mark above four feet higher than the
present water line; which would be wholly insufficient to produce any overflow of its banks.

I saw a great number of skeletons of yaks between the low and high water-mark; and, althongh the bones of the trunk and limbs were bare and bleached, the head was in almost every instance, and particularly its fore parts, covered with the skin, to which the hair adbered. I could get no account of the cause of the number of the carcases; but think it probable, that in the severe season the space between the banks and the water is filled by drifts of snow, and that the yaks going towards the lake fall into them, and are suffocated. Adverting to the instinet and experience of this animal, this solution may be erroneous; but I have none better to offer.-At first it occurred to me that they might have been sacrificed: however inquiry did not bear out this conjecture; nor could I discover any ground for thinking that these creatures are subject to epidemical diseases, which might have compelled them to resort to the lake, either to quench their thirst, or to alleviate their sufferings by bathing. With regard to the preservation of the skin in the forepart of the head, this would soon dry from the influence of alternate heat and cold, there being little muscular substance between it and the bone to become soft and enter into putrefaction.

August 8th.-Begin to return towards Hindístan. Thermometer $45^{\circ}$.-Mr. H. cut his and my name on a stone, and left it in a secure place. At eleven A. M. march. At 9100 paces pass tents of Tatars and Juhris : croas a watercourse, at 10,200 paces, which was dry, when we went towards Mansarbroar, but is now two feet deep. At 12,126 paces encamp near seven or eight tents. The valley of Gangri is about twelve miles broad, and nearly twenty-four long. At the eastern extremity is Mansardwar: opposite is Rawanhrad.-The latter lake has always been represented as surrounding some
large portions of rock, a little detached from the great Himáchal: however, the view which I had of it, completely destroys this idea. It consists of two legs, which are long, and not very broad; one leg runs eastward towards Mánsaróvar, is straight, and ends in a point; the other goes to the south amongst the hills; and their divergence, forms an angle almost directly opposite to the town of Gangri or Darchan. I think I saw a stream issue out of it at the western side of this angle, which probably communicates with the many streams which form the Setlej: but this point I purposed to make out decidedly.

August 9th.-Thermometer 420. I suffered much from fever, and was unable to go to Rawanhrad. About sun-set the wind became very high, and thick clouds, with loud peals of thunder, announced the approach of a storm.-This began with hail, turned to rain, and at midnight a fall of snow took place, which lasted till morning.

August 10th.-At six in themorning, thermometer $32^{\circ}$. Our tents covered two inches thick with snow, which continues to fall. The streams on the plain much swollen, many parts covered with water that were quite dry yesterday. The ground very poachy, all prospect of visiting Ráwanhrad given up, and anxiety felt, lest a continuance of this weather should fill the passes of the Himáchal with snow, and exclude us from Hindústan. Ráwanhrad receives many rivulets from the southern face of the Caild́s ridge ; but a large body of water, it is probable, falls into it from the northern front of its snow-capped neighbour the Himáchal range.-I much regret to leave unsettled the question of a branch of the Satudrá proceeding from it; but must bow to the necessity of the case.

On its banks vast numbers of wild geese are bred, and it is probably better stored with fish than Mánsaróvar.
as one edge of its banks is fringed with grass of considerable height, and there is swampy land at the mouths of the streams, which empty themselves into its bosom. At a distance its water was of an indigo blue. The eastern leg appeared about five miles in length ; of that of the southern one I could form no opinion, as it was lost in the mountains. The name is derived from Ráwan, so much famed in the Rámáyana, and the Sanscrit word hrad, signifying lake. The principal streams which rise in the Cailas, and disembogue, are, 1st, the Siva Ganga; 2d, Gauri Gangá; 3d, Darchan Gadrah; 4th, Cátyayani ; and there are many others without names. It is said to be four times as large as Mansarowar ; but of this I can give no opinion. We have been forced to remain here all day. At nine the snow ceased to fall, and was followed by rain that continued till three. At twelve, thermometer at $69^{\circ}$. At sun-set rained again; thermometer $43^{\circ}$. About midnight the rain ceased.

August 11 th. -Thermometer $42^{\circ}$. March at 94 , over a plain which is very poachy. Our yaks, though very strong, labour through the soft ground, into which they frequently sink up to their bellies; but if left alone, would feed and wade along. English oxen would be much distressed and frightened in such quaggy soil. A hail storm induces us to halt at 9825 paces, near a small river, at three o'clock. Thermometer, Even. $49^{\circ}$. Cailas mountain is supposed to be the favourite residence of MaHa'de'va, and is situated opposite to the great lake of Ráwanhrad, and little distant from that of Mansarbwar. As its summit is always clothed with snow, it is but a cool seat : however this cold is said to be necessary, on account of the poison which has heated his frame ever since he swallowed it at the period of the Sankh Avatár.

August 12th.-Thermometer $40^{\circ}$. A party of people, having in charge a body of about seventy yaks loaded
with Awa jow, in sacks, passed our encampment in the direction which we mean to take. March at $8 \frac{8}{4}$. At 2400 paces, many wild asses, and some animals, which are thought more like mules than either horses or asses. At 6780 Gangri valley ends. The declivity goes to the left, and the water of this land falls into the Tirtapuri river. At 7000, meet the old road. At 12,969, reach our ground opposite to our former encampment.

August 13th. -Thermometer $97^{\circ}$. March at $9^{\text {b }} 15^{\prime}$. At 3970 paces fall into the Misar road. At 4460 descend to the bed of a rapid river, which we pass over a Sankho. Here we found many Gelum families of Tatar shepherds, who had been carrying to Mansarbooar the ashes of their deceased relatives. At 5315 paces descend to another river, in rapidity and volume of current similar to the former. As there was here a Sankho three feet in breadth, we thought it right to attempt to force our yaks over, loaded; but they disliked going on account of the height of the planks from the water, and the roaring of the river as it descended through the contracted channel. One, which was closely pressed, preferred leaping into the water from a bank of stones seven feet high, aud swam under the bridge to the opposite side loaded. At 14,886 paces reach Tirtaphiri. Wait in the veranda of the temple, where our wool is packed, until the arrival of our cattle with the baggage, which did not take place in near seven in the evening. Went into the temple to hear the Gelums repeat their vespers, the recital of which was accompanied with cymbals, and the beating of a deeptoned drum. The performance of the ceremory was preceded by the blowing of conchs from the top of the temple. We generaHy formd the Gelums assisted by the Juairts or Dharmis.-One of these men said that the breach of chastity in a nun was compensated by a fine of fifty rupees, and that of a monk or Gelum by one of sixts.

[^21]A report is current amongst the Juhris and Dharmis, that the Gorkhdili governor of Srinagar has written that he understands two Europeans have gone by the Ntti, and two others by the Dharma pass, into the Undes. He desires imformation may be conveyed to him, as to who they are and with what intention they are going.

Some Juaris, whom we here met, were concerned in the transaction respecting conveying shawl wool to Belebre fair for Mr. Gillean, which had excited the attention of the Latakhis, caused their complaint to the Garpan, and his severe edict against the clandestine sale of this article. One man told me, that he had been seized by Aumid Khan the Latakhi, for having a small quantity in his possession, which he said he was abcut to make into pankhts.-This day 1 was much indisposed with fever.

August 15th.-Thermometer $44^{\circ}$. March at $9^{14} 30^{\prime}$ : at 4700 paces come to an ascent of high Table Land. At 5836 , a large river, supposed to issue from Rawanhrad, joins the Térat river, at S. 30 E. distant 14 mile, the little stream falls into it here likewise. The stream resulting from this junction now takes the name of the Satudrd. At 6395 arrive at some mad temples with many caves in the rocks, shewing the place to have been once a winter resort of the $U^{\prime}$ niyas, but now deserted. A violent storm of wind, thander, lightning, hail, and rain, now sets in and lasts till nearly an hour.-Rains again at sun-set. Thermometer $59^{\circ}$. Find two Juaris encamped here on the road to Kien-lang : one of these traders reproached us with spoiling their market, by selling our goods at too low a rate. The Juiarts have hitherto been the principal medium through which the $U^{\prime}$ miyas have received, since the conquest of the hills by the Gorkhalis, the produce of Hindistan and European merchandise ; and they have sold their wares at so high a rate, as to have confined the demand to a few rich individuals, guch as the Garpan, Débas, and Nerbas.

August 16th. Thermometer $45^{\circ}$. March at $\mathbf{8}^{\text {h }} \mathbf{3 0}$. River remaining close to the left. The low warm swampy land in the vales about Tírtápurŕ gives a grass, which is cut and carried as hay for winter provision, for the horses of the Garpan, and the people of Kien lung, Dábá and Dúmpú. The grain called Awa-jau raised in Tikla-kote is also given to them during the rigorous season, and said to be hearty food. As this grain grows in a rigorous climate, it is worth while to send some to Britain for the use of the inhabitants of the western isles.

At 5280 paces, reach a steep rocky pass of a stone laminated, rolled and whirled as at Tirtapurí, and apparently bound by the same agency. At 5600 , broken ground presents appearances similar to those in which gold dust is found. At 5740 , immense masses of broken rock of a brown colour, much veined with quartz, in the cavities of which is much rock crystal; that, which is small, generally transparent and regular in form ; the large crystals ordinarily discoloured, full of flaws, and fractured or shivered. At 6737, water drips over an inclined plain of rock and tastes salt and nauseous. At 7.178, hot-water flows from the rock and covers the edges of its course with stony concretion of a yellowish colour. At 9465 , reach a good sankho over the Setlej about fifteen paceslong, and four feet broad. On the right bank a natural fountain throws hot water a foot above its level, the edges of which are covered with a compact, hard, white, tufa, at a distance looking like ice. Come to our ground at $4^{\mathrm{h}} 10^{\prime}$ : wait in a cave till our baggage arrives. Have th's day come 9765 paces, and encamp in a hollow surrounded by rocks formed by hot-water, opposite to the town of Kien-lung, situated on spires of rock on the right bank of the Setlej distant $\frac{9}{4}$ of a mile. The road of today has been of a very rugged description : and the yaks with the wool and baggage were obliged to make a circuitous route over the tops of the hills, in order to prevent the loads being knocked off by the stones which projected from the sides of the path that we took. Yet,
notwithstanding, many of the loads fell, and at night it was discovered that the sirkar's bundle was missing, along with a small packet of Cashmir saffron which I had bought from the Latákhi agent.

The whole of the country, from Tirtapuri to Kienlung or Chinglung, exhibits abundant proof of the presence of minerals, and the rocks teem with springs of hot-water, impregnated with various mineral and saline substances, which we had neither leisure nor means to analyze : the springs of Tirtápurít seem charged with calcareous matter alone, which in process of time becomes lime-stone, marble, and calcareous spar. Near Kienlung, the hot-water contains calcareous matter mixed with salts. Still nearer to this town, it is charged with iron; and opposite to Kicn-lung is a cavern into which drips water highly charged with sulphuric acid. This cavern is about twelve feet in breadth, at its mouth five feet high; and about fourteen feet in depth, from the entrance to the back part. The floor consists of projections of calcareous matter mixed with sulphur, and cavities or pools of water about four feet deep, transparent, highly charged with sulphur. Hot sulphureous vapour issues through numerous holes in the floor, and a person is thrown into perspiration almost immediately, without his breathing being incommoded, by the sulphur steam, provided he stand upright : but he is seized with coughing and a sense of suffocation, if he crouch on the floor, as happened to a Hindu who sat down. This occurs likewise in the grotto dei cani, and arises merely from the specific gravity of the sulphureous gas being greater than that of the atmospheric air, with which it does not mix with celerity. The sides of the cavern were formed by calcareous matter, and flour of sulphur, in some places straw colour, in others of a deep brimstone hue. The proportion of brimstone to the other material is nearly two to one. The side is so soft, that it may be scooped off by the hand, and is a little moist. It is rubbed into powder with ease, and
then mixed with oil which unites with the sulphur, and the calcareous matter subsides. Coal has not yet been found by the natives; and fuel is only afforded by the furze in small quantity. If fuel were plentiful, I apprehend, that many hundreds of tons of sulphur might be obtained from this cavern and the immediately surrounding calcareous rock ; which, even where white, is highly charged with sulphur. Immediately ip front of the mouth of the cavern, aud forming as it were its threshold, is a mound of calcareous stone, through chinks of which spring many jets of hot-water perfectly transparent, and of a smell and taste very similar to that of Harrovogate. The vast walls and masses of rock, which have been formed by the action of hot springs in this neighbourhood, shew an antiquity that baffles research and would afford food for sceptics.

The town of Kien-lung, consisting of about a hundred small houses, built of unburnt bricks painted grey and red, is situated upon the summit of a cluster of spires or natural pillars of indurated clay in the face of high banks. of the same material, which overtop it by at least a humdred feet; whilst the town itself is at least 200 feet above the bed of the river, and in a retiring angle. This kind of situation seems particularly affected by the Unias for their winter retirements ; and the preference is founded upon judicious principles; for, from the conical shape of the pinnacles which form the foundation of the houses, the snow slips from them and falls into the valley below; the height of the rocks behind guards them from the force of the winds which sweep over the summits of the hills, and the elevation of the town above the level of the plain prevents the inhabitants from feeling the blasts which frequently rush along the course of the river with a violence which can scarcely be conceived.-At present, from this being the season most favourable for pasturage, the greatest part of the inhabitants have left the town and gone to a distance with their flocks and herds.

August 17th.-Thermometer $49^{\circ}$. Four men were dispatched before day-break in search of the sirkar's bundle, which they found, and returned by nine o'clock ; however, as the servants had begun to cook their victuals, we could not march till $1^{b} 50^{\circ}$. The heat was very great.-At 500 paces a strong sulphureous smell issues from hot springs; the roeks stained yellow with sulphur, which appears in considerable quantity mixed with earth, in interstices hetwixt masses of rock. At 9875, the chaunel of the river, from being broad, suddenly reduced to 50 yards; road along its edge stony. Reached our ground at seven P. M., 8383 paces. This has been one of the most rugged marches we have had in the $U^{\prime} n d e s$. As it grew dark, we fired carbines occasionally, to apprize our people behind of the direction we were encamped in ; and at half past nine had the satisfaction to see them arrive without having met with any serious accident.

August 18th.-Thermometer $37^{\circ}$. March at $8^{\prime \prime} 55^{\prime}$. Some of the yak cows left the watercourse and went up the rock, the face of which became steeper as they advanced. One of them, finding herself separated from the great mass of her companions, without hesitation leaped from a height of about fourteert feet into the dry watercourse, apparently without being hurt by the shock; and her example was fcllowed by those which had taken the same path.

At 6900 pates, commence descending to a river formed of two hranches, the right coming from S. 5 W . the left S. 35 W. They run N. 30 E. At 7625 reach the point at which the streams just mentioned join, and, breaking through a high mountain, fall into the Setlej. The bank on this side is as it were dissected ; the softer parts having been washed from the harder strata : the latter present a very irregular and extraordinary projecting surface. At 7700 , cross the river $1 \frac{1}{2}$ feet deep; at 8000 descend to the second river, the water of which is more clear, and its
banks afford more grass and furze for fuel. At 8050, cross and encamp at $1^{\text {h }}$. P. M. Here we observed on the banks of the river many larva of a kind of locust, which breeds on the stony plains of Tatary, marked on the body with a yellow ring on a black ground, and having a large horn in the tail. Two species of locusts breed here: one with purple wings; by clappingethe homy cases strongly together, it makes a smart crack as it flies. The other is twice as large, the carcass and wings of a yellow, spotted with points a little darker.

High wind from the Himachal, which lasted from three to night-fall. Thermometer at seven P. M. $56^{\circ}$.

August 19th.-Slight frost. Thermometer $37^{\circ}$. March at 7 ". At 1300 paces, observe that the two rivers which we crossed yesterday join due east about 900 yards. At 5000 commence ascending the gorge, and reach the summit of height which shuts the valley. At 5240, arrive at a pile of stones and descend by a tolerably good road, on which were many small fragments of different coloured jasper and white agate; to the right is the river formed by two streams, and now running parallel to our line of march about $2 \frac{1}{3}$ miles distant. At 15,700 commence descending; the town of Dúmpru in sight. This is built on a steep eminence forming part of a ridge stretching from the side of a mountain and sloping to a river, but rising at least 300 feet above the bed of the latter. Some ruined buildings on another eminence are separated from the town by a deep glen, in which runs a stream of delicious water. The banks of this watercourse, cut into steps or narrow beds, are now covered by the grain called Awa jau now in ear, and watered by cuts from the stream begun near its source. The relief afforded to the eye by dwelling apon this, after having been so long tired with the repetition of bare rocks and of plains most scantily sprinkled with verdure, is such as cannot be conceived oxcept by those who ehance to have been in such situa-,
tions. The inhabitants have also been equally industrious in turning to account a shelf of gently-sloping land at the foot of the ridge watered by the large river. The regularity and luxuriance of the crop shew, that the soil would be very grateful if the farmer would irrigate sufficiently.

August 20th.-Halt at Dúmpú. Thermometer 49: The warmest day we have had since our arrival on the U'ndés. Amer Singh arrived at ten this morning. It appears that a dawk, or post carried by horses, regularly goes from Ghertope to Ouchong (Lassa.) Each horse performs twenty kos a day; and the journey takes up twenty-two days at this rate. So that, giving the kos as two miles, the distance may be estimated at 880 miles. The intermediate country is most thinly peopled. The shawl goats are from Latakh to Lassa, where it is said there are sheep with finer wool than here. The Ouchong merchants buy woollen cloth at Ghertope from the Latákhí and Juárí traders.

This day has been hot, with the exception of about half an hour, during which we had a smart shower of hail. Thermometer at night $56^{\circ}$. We were obliged to halt this day, on account of our cattle being much tired, not only from the continned marching that they have had, but from their having seldom been able to fill their bellies on account of the scarcity of grass in the course of our route.

[^22]6740, at which we arrived at two P. M. The furze adjoining the Awa-jau fields, with some springy land, formed a favourite resort to hares; and many Chakórs* were heard in the neighbouring hills; and taking our guns, Mr. H. and myself had good spert. Found a partridge very like that of England in plumage and size, but which had a strange grunting call. This bird ran astonishingly swift, and I could not make it take wing. The Chakor s breed in the hills, and afforded excellent diversion, although at the same time it was very laborious and not without danger. This day three of our loaded yaks fell over a steep bank from thirty to forty feet high into a ravine ; and, although they had struggled much to disentangle themselves, lay on their backs unable to get up; on the ropes being cut, they rose apparently with very little injury. Thermometer at night $55^{\circ}$.

August 29d.-Thermometer $37^{\circ}$. March at $8^{\text {h }} 45^{\prime}$. At 11,900 paces arrive at a pile of stones with religious inscriptions carved upon them. Dabbá looks larger from hence than from the approach to it on the Nitf road. We were welcomed by a crowd of half-naked, dirty, ragged children, in terms of friendship, and they were made happy for the moment by a few scraps of broken biscuit and some raisins. We proceeded to our original encampment in the town, having completed 12,575 paces at $4^{h}$ $40^{\circ}$ P. M. We thought it proper to inform the Wazir and Déba of our arrival, and to inquire where it would be agreeable to them that we should pay them a visit; to this a reply was sent, that they should be glad to see us the following morning.-About half-past eight in the evening, the old pundit came to say that the moon was eclipsed, and we immediately heard the sound of trumpets and beating of drums and gongs from the temple of Na'ra'yan, and that erected on the site of theold palace of the Súrjabans Ra'ja'. This I presume was in-
teaded to drive away the dragon, which during the time of an eclipse, is supposed by the Chinese to attempt to devour the moon. This eclipse was a total one; but the obscurity was much less dense than I ever before observed it. Thermometer at night $55^{\circ}$.

August 23d.-Halt at Dabá, or as pronounced, Dhapa. Thermometer $40^{\circ}$ at sun-rise. At nine, a messenger from the Wazir and Déba stated, that they were ready to receive us. In an apartment on the roof of the government house, we found the Wazir and Déba, along with the brother of the Garpan, and a person whom we took for a commander of cavalry, seated in an open verandah, in front of which we placed ourselves on a cushion. -The presents made this time were less costly than those on our first interview with the young Wazir and Debba. After the usual complimentary inquiries, the Garpán's brother remarked, that our journey had taken up a considerable time, and that he feared, if our return to Hindústan were much longer delayed, it might be stopped altogether by a sudden fall of snow filling all the passes : a circumstance not unusual at this season of the year. In answer to his remark, it was observed; that we had been somewhat delayed by an ilmess which attacked me soon after I left Ghertope; and that our cattle had been so reduced by continued marching and scanty supply of food, as to be incapable of proceeding as quickly as we wished.-That we were very solicitous to return to our homes, and should depart as soon as our cattle should be a little recruited, and the Wazir and Déba would assist us by hiring cattle to enable us to carry our wood to Nitt. This latter they promised to do without delay. I exchanged a knife with the Wazir for a curved horn snuff-box. After a sitting of two hours, during which a plate of raisins was placed before us, we took leave and made a visit to the Lama. The old man was apparently much pleased to see us and had tea prepared, of which according to our Hindu character we could not partake.

Mr. H. brought as much orange cloth as would make him a dress, but this he refused, saying the weight of the obligation would be too great, it being out of his power to make a suitable return for such civility. I found that a knife and pair of scissors would be acceptable to him, and I sent for them. He was most highly gratified by this token of regard, and gave us some slips of gauze sent to him by the Déba Lama, along with some red comfits made of flour, water, and some red colouring matter; they were insipid, but having been made by the holy hands of the head of the church of this country, were said to possess extraordinary virtues, provided they were caten before any other thing in the morning. These properties lay in a very small space; for the comfits were no bigger than partridge shot. Being desirous of bringing a specimen of the U'nia writing, some of which had appeared to me very neat, I requested, that he would give me a written paper, as also one that had been printed. In compliance with my desire he gave me three slips of blue paper, on which some prayers were written in letters of gold by a Gelum lately dead; and with his own hand he struck off from a wooden block another prayer on a piece of coarse Litbarua paper. In the latter, having placed a few grains of Awa-jau, he blessed it, and wrapping it round with an orange-coloured silk thread drawn out of an open stuff with loose ends apparently for this purpose, he recommended us to hang it in a particular direction, and we should find it in some respects useful to us. He caused some tea-leaves in a mass to be brought to us, along with a small piece of soda, which is in this country always employed to extract more of the colouring matter and flavour of the tea than would be done by the water alone which is here hard. A cheese made of meal and milk slightly daubed over with coarse sugar, and having a few raisins stuck in it, with a cake of a sweetmeat made of sugar and butter, and a large plate of raisins, formed his present. The cheese had a very strong smell, and as well as the tea
and sweetmeat was given to our servants. The old man finding, that we would not take back the cloth, requested that it might be given him the following day in the presence of the Gelums. The more we have seen of this priest the more we are pleased with the simplicity of his manners and the liberality of his sentiments, as far as the stupidity of our interpreter would give us to understand his conversation.

In the evening we were desired again to visit the Wazír and Déba. They were engaged in writing to the Garpan; and we requested, that a letter, in general terms, informing him of our safe arrival, and expressing our thanks for his attentions, might be transmitted to him in our name; which was done. It was promised, that on the following morning some cattle should be brought, that we might select two for our own riding, at the rate of fifteen rupees nominal per head, and that others would be furnished to carry our wool and baggage. Two trays, containing rice with a lump of butter, secured in a piece of the skin of a yak with the hair on, were put before us as a present, along with a plate of raisins; and a written order, signed by the Wazir and Déba, for five goats, was directed to be given to the steward, who would on receiving it immediately forward the animals. Thermometer $55^{\circ}$ in the evening. At night the Wazir sent an agate snuff-box, in exchange for that of horn. After I had the latter in my possession, I observed a small ring of gold, by means of which the bottom was capable of being taken out in order that the snuff may be put in, the mouth being too small for this purpose. I could not help thinking, that the Wasir had overlooked this circumstance in the first instance, and now recollecting it, thought he had made a bad bargain. Under this impression, and resolving to defeat his avarice in this matter, I pretended to misunderstand his message, and returned another knife with a small silver-capped glass salt muffineer that had been admired in the morning by him. The
agate box was in the shape of an urn flattened at the sides, and surmounted at each shoulder by the mask of a satyr. This appears to me an antique of Grecian workmanship; or, if it should be of Tatar fabric, the hollowing does credit to their ingenuity. The Waztr seemed pleased with his new bargain.

August 24th.-Thermometer $39^{\circ}$. This morning we went to the lodging of a Latakhi-Cashmírian merchant, who shewed us Russian leather and French woollen cloth. The Latakhe said, that the Russians had latterly imported much merchandise into this part of Tatary through Yarkund, which is forty days' journey from Latakk and fifteen from Bokhara.

At night the Waztr and the rest of his council sent for the old pandit, and the brother of the Garpan said, that they were anxious for our departure, lest some accident might occur to us, which would be a source of great uneasiness to them. That we had now passed through their country once; and as we were Firinghis, we could not be allowed to come a second time. The pandit said, that they well knew he was conscious that they had it not in their power to prevent our visiting the country whenever we pleased. That whether we should do so or not depended upon the orders of our superiors; but, if we should, our dealings would always be governed by the same integrity which they had alr n ?dy witnessed, and which they could not but approve. He then departed. This day a well looking Juari in a clean dress, of the name of Deb or Deba Singh, came to pay his respects to us; he was son to a man of consequence of the name of Dhamu', who had ordered him to come over, and, whether we were Mahants or not, to offer his services in whatever we thought he might be useful. If he thought us not Mahants, he was directed to say that 2000 men were ready to take arms for the cause of the Rájá whenever a rallying point was furnished. He said,
that, as our journey had been long, and we had, he understood, been made to incur unnecessary expense, he should be happy to furnish a draft on Srinagar for a thousand rupees, if it would ufford us any accommodation, and would take the amount at Haridwar, either in goods or money, as might be most agreeable to us. We thanked him for the offer; which we declined, but employed him in some little offices in which he was serviceable: I sold the whole of the coral beads I had provided, for ninety rupees, to Amr Singh, who passed them over to $\mathrm{De}^{\prime}$ b Singh for fifty shawl-wool goats and twenty sheep, to be delivered to him at $N s t$, and to be brought down to Chilkia by Harkh De'b. This, though much under their value, was the best return I could form, as, in the event of accident to our first batch of goats, the second might fill their place; and this precaution was the more necessary, as all the persons we met with, said, that by far the greater part of these animals, if taken through the hills before the cold weather should have set in, would die on the march.

August 25th.-Thermometer $41^{\circ}$. The Wazir and Déba sent word, that the yaks would be ready to take our loads this morning; we returned an answer, that we should not be able to march until the following morning: and that this would depend upon their performing their contract. A messenger returned with twelve rupees from the Wazir and which they had undertaken to supply; but now said they could not furnish ; and this was soon followed by those persons who said that the people from Ghertope were extremely anxious to return, and expected we would set off this morning, as they could not depart until we had began our march. We repeated our arguments and ordered our cattle out of the town to graze. An order was given by the Wazir, \&c. to shut the gates, and we sent two resolute men to open it, and to turn out the yaks. 'This they effeeted without resistance.-We then remon-
strated in very strong terms with the Wazir and Deba on the impropriety, and meanness of their conduct ; after a little conversation they both appeared ashamed, and said they did not act from themselves, but under the authority of the Ghertope messengers by order from the Garpan. Immediately after the Wazir and Déba returned, these people learnt our intention, and without waiting for our visit, saddled their horses and went of: The Wazir and Déba, sent word privately, that, if we would take saffron, they would in the evening take some of our cloth. The Latakht saffron is received by the Latâkhts from the Cashmirian traders, in payment for the shawl wool furnished by the latter; and again given to the U'nias in payment for the wool taken from them. It appears to me pure, but dear; however, the highness of price is, in some measure, owing to the form of the transaction being by barter. According to our promise we went to the government house, where we were received with a cordiality calculated to efface the impression of the late transactions, and which our conduct on the occasion shewed had produced that effect. The Wazir and Déba said, that really there was much danger of our entering Hindưstan being prevented altogether, if our departure were delayed; that if they followed their own inclination, they could wish us to stay longer ; but the season was advanced, and it would much grieve both the Garpan and themselves if any accident were to occur to us.

August 26th.-Thermometer 37. We commenced our march from Dábd at ten A. M., following the direction by which we arrived at first, in which line we continued, and crossing the Tiltil reached the junction of the two streams before mentioned at twelve, having come only about three miles. Here the measurement commenced as we took a new road. At $\boldsymbol{q}^{\mathrm{b}} 30^{\prime}$ took up our ground for encampment. Our baggage did not reach us till eight at night, in consequence of many of the loads falling off,
from the ruggedness of part of the road, and from our people having kept in the direction of the former line instead of following us exactly. The road we have now taken is in the straight line for Nitt, the other was circuitous, but better. DE'B SINGH came in the evening; and promised to send us three fat sheep for our consumption on the road. When the sun set it became very cold; before sun-set thermometer $48^{\circ}$.

Augus 197 th.-Asour cattle had been much reduced by their long journey from Ghertope to Mansarbwar and back to Deba, they had performed their work of yesterday but weakly, and it was therefore judged advisable to halt, that they might have a chance of filling their bellies, although the pasturage was even here but scanty. De'b Singh was very anxious to receive a certificate of his endeavours to be useful, and a recommendation that he should be permitted to enter the Company's provinces paying only the usual duties. . The papers required by $\mathrm{De}^{\prime}$ b Singh were given to him, and he took his leave highly satisfied in appearance. Much ice in the river this morning.

August 28th.-Hard frost. In some places the ice was $2 \frac{1}{ \pm}$ inches thick. Thermometer $28^{\circ}$. Marched at 9. At 7300 paces reach our ground, and encamp at 19 h $30^{\prime}$. Thermometer in the open air $67^{\circ}$. Found many ammonites in iron-stone, generally broken. Much iron in the mountains, which have scarcely any vegetable upon them, and are rapidly frittering into fragments. We are now about one third of the Gháti which separates Hindústan from Tatary. Mountains are less high and bold than those farther on in Bútán. Two yaks have been left behind from fatigue. although the march has not been long, yet parts have been very distressing. The rivulet or rather river (for when it fills its channel it well deserves this name,) is called Chang-lu. It is formed by three or four branches, which issue from the heights below

## the Nitt Ghatt, and it disembogues itself into the Setleg.

August 99th.-Thermometer $29^{\circ}$. Hard frost; and very cold to our feelings. Leave our groand at ten A. M. At 3745 paces reach the bed of the river near which we halted on the first day, after crossing the Ghdtf, in our road to Dabb. The name of this is Jandú. It rises N. 85 W., and runs N. 80 E. to the Setlej. The banks are formed by stupendously lofty mountains. At 6125 reach the Ghatt, which separates Butan from the, $U$ rodes, and which has upon it a large pile of stones, the offering of travellers, surmounted by rags in token of the victory they achieved in reaching so great a height. The Ghett is about half a mile broad, almost without any vegetable. The wind from the Bútan mountains covered with snow is most piercingly cold. We turned out of the road, to the left hand, and, in order to save a little distance, scaled an ascent which cost us double in time. One of the yaks, which had fallen from a precipice a few days before, and received such a shock as rendered him unfit for carrying a load, after he had ascended a few steps, suddenly returned, and ran downwards towards the river as rapidly as the badness of the road would admit, and faster than any one who has never seen these animals travel over crags would suppose possible. I had got upon a Jabú (or mule between a yak and a cow), and was bringing up the rear. The animal charged me, and endeavoured to overthrow my steed, who however stood firm. Luckily. he took my thigh between his homs, and did not hurt me materially. When he found room, he did not repeat the attack, but continued his course towards the river, upon the bank of which he stood still. I leaped off the Jabtu, had him secured, and passed a cord through a hole in his nose. Though one of the most tractable animals I had ever seen, before the fall, he now was become wholly the reverse: I saw, that some derangement of the brain had taken place, and was obliged to
abandon him. Another yak, the best of my, herd, actually separated the hoofs from the toes of the hind feet in exertions to climb the stones; and after bleeding very largely and prosecuting his journey in great pain, when a stop was made to allow of the others taking breath, he also refused to proceed. The $U^{\prime} n i a s$, who had brought the wool on hire, on the Wazir and Déba's cattle, sat down every five or six steps on stones, and smoked and spun yarn till the animals were disposed to proceed. This was a terrible day. The descent was very slippery as well as steep, and required great precaution. The ascent of the Gaihti measured 2110 paces, the descent 1750. At 9835 reach a good grassy plain on the left bank of the rivulet, which runs from the Ghati to the south, in order to fall into the Daulí and encamp at $5^{\text {b }}$ $50^{\prime}$. The goats reaching the bottom of the Ghate first, instead of taking the right road, by the carelessness of the people in charge, went up a crag about 500 feet above the level of the road, and very leisurely placed themselves on the very edge of the precipice; a mountaineer, native of Kamain followed them, and by throwing stones and calling, at length succeeded in dislodging them from the dangerous post they had taken. The latter rank, in coming down, deranged loose stones which tumbled down an abrupt slope, by which they descended with a force that threatened to overthrow those which were nearest the bottom; and it really was entertaining to see with what address, whilst at a run, they avoided the blows of the rolling stones without turning their heads in the direction of their descent. In this march we met with much wild Chana*, not yet ripe. This might be an acquisition to the mountains of Scotland and Wales. Thermometer at night $39^{\circ}$, wind high.

August 30th.-Snow falling on the adjacent mountains, and in less quantity on our tents; thermometer $37^{\circ}$.

[^23]Had we not crossed the Ghdti yesterday, we should have found it difficult to-day. As the pasturage here was good, and it is a long time since our cattle have fairly filled their bellies, we halted this day. In the course of the morning the $U^{\prime}$ nias in charge of the Wazir's sheep came up, and stated that they could not bring up our cattle: that at the foot of the dry watercourse being unwilling to move, and the other very lame. Thermometer at night $41^{\circ}$.

August 31st.-Thermometer $41^{\circ}$. Water frozen during the night. Frost greatest just before sun-rise. March at eight A. M. At 1280 paces arrive at the bed of the Daull river. The stream is now much broader and deeper than when we crossed before. The rivulet, near which we encamped last night, falls into the Dauli here, which is about two feet deep and very rapid. The descent was very rugged, and winding amidst large blocks of stone: much of the Chand on both the banks of the river; the grains sinaller than that cultivated; but the plant throws out many pods, much foliage, and appears hardy.-At 3700 paces reach the ground on which we encamped in going; and, finding our cattle much fatigued from the badness of the road, abandon our intention of endeavouring to reach Gotang. When we went to the $U^{\top} n d e s$, the mountains, by which we are now surrounded, were almost entirely bare; they are now covered with verdure ; and many of the plants going to seed. The white, yellow, and red flowering strawberry have bore abundance of flowers, but only a cone of seed without any pulp. Whether in a more kindly soil, they would produce fruit may be worth trying.

Neptember 1st.-Thermometer $36^{\circ}$. March at eight by the same route we came. Descend the steep Ghatt to the bed of the Dauli. One of the yaks could not be driven round the projection of rock which led to it, but resolutely charged back again in spite of sticks and stones.

The $U^{r}$ nias went by a lower road along the steep face of the rock. The stream of the Dauli was very rapid and reached half way up the yak's shoulder. After having gone about a hundred yards, perpendicular rocks, dipping into the river, compelled them to cross again to the right bank, and a third crossing took place immediately above the Sanga, which was so bad that our men were afraid of going along it even with very light loads. Their apprehensions were reasonable enough, for the Sanga was made only of two loose sticks of fir, with large loose stones sloped nearly in the angle of $45^{\circ}$. At 6100 paces, the Daull meets the stream which comes from behind the Nar-Nattyan Parbat near Bhadrindt'l. This river is larger than the Dauli. Of the two arches of snow, which lay over the river as we passed before, one bad dissolved, and nothing remained but the abutments; the other was entire and still of great thickness. The road was almoost as bad as possible. Indeed it is scarcely in the power of imagination to suppose, that such a surface could be trodden by men and cattle, without their being precipitated into the Daulf, which rolled a tremendous current at the foot of the slope, over which the path run (if that could be with any propriety called such a name, when effaced in many places by recent slips, and in others by blocks of stones, for nearly a quarter of a mile together.) This was a march of disaster. The yaks, in inclining their bodies towards the mountain to prevent their slipping into the river, struck their loads against portions of rock, and tore the packages. At every hundred yards, there was a cry of somothing being wrong. The people anxious to getover the dangers and difficulties of the march, in opposition to what I could say, persisted in driving the cattle too fast. The day was.very hot; and the yaks, oppressed by the heat, the weight of their burthens, and the incessant calling and flinging of stones, found no mone effectual way of esoriping from these annoyances, than by rumning down the almost perpendicular face of the rock and dashing into the cold
stream. Sometimes by the slipping of the soil they fell into the water with some violence, and after cooling themselves, to my great mortification, generally lost their loads in climbing over stones to regain the road. At 3, reached our ground; and in the evening, I had the mortification to learn, that two yaks in the last detachment could not be brought forward. One had slipped into a niche in the bank of the river and could not get up; and the other had become so very lame, as to be unable to pass over the sharp edged blocks of stone which lay in the road. At night thermometer $56^{\circ}$.

September 2d.-Halt at Gótang. Thermometer 56. At night, $54^{\circ}$.

September 3d.-Thermometer 44o. March at 10, A. M. . The sight of trees is extremely pleasing after our being so long absent from them. The rhubarb had now run to seed. I cut up many roots, but found the whole more or less spongy and rotten. From the holes I have seen in the Turkey rhubarb, and its irregular knobby form I apprehend that this is its usual habit. Gentian is met with in great abundance, is called here Catci, and given in infusion to goats and sheep; most especially, when, in travelling towards Hindiustan, they are supposed to be distressed by heat. The woods here are composed of birch, the great Rhododendron*, willow $\dagger$, and mountain-ash with brown berries. The road was extremely bad; and the trouble we had from the falling off of the loads, and from our yak cows and calves straying up the mountains, and down the sides of stupendous precipices, where it was scarcely possible for them to fix one claw, is not to be conceived. It was nearly night when I reached Niti, notwithstanding Ame Singh brought several yaks to assist us. The lame yak was brought to Gotang, and there left to recruit in the

[^24]abundant pasture of that place; that, which had fallen into a nook of rock near the river, could not be found. The upper part of Bútan is now suffering much from scarcity of grain, in consequence of the Júaris and Dharmis plundering the Gangaris, or people living on the banks of the Ganges within the hills, who were in the habit of bringing up the grain they raised, and that which they procured from below.

September 4th.-Thermometer $54^{\circ}$ in the morning; $80^{\circ}$ at noon. In the afternoon there was a fall of rain, accompanied by thunder. At night thermometer $54^{\circ}$. The gooseberry-bushes, which were in flower when we were here before, are now full of fruit, of which only a few are ripe. They are, as I conjectured, of the burgundy kind, but small ; and the pulp is much smaller than that of England in proportion to the bulk of the seed; but this may be remedied by cultivation. Of currants I found two varieties, one orange-coloured with small fruit in small clusters, the other of a dark purple or rather nearly black in large bunches from a tree, with bark like that of the black currant in England, but with the flavour of the red one, only more acid. This morning we sent to announce to the Séyánas that we had arrived, were anxious to depart, and were in want of provisions. In the evening Arjun and Gu'jar came, and said that the terms of carrying the baggage should be adjusted to-morrow.

September 5 th.-Thermometer $48^{\circ}$. At night $62^{\circ}$.
September 6th.-Morning cloudy with small rain; thermometer $52^{\circ}$. At night $54^{\circ}$.

September 7th.-A party of Gorkhall Sipahis, consisting of a havildar and four privates, arrived to-day for money due from the Nttias to their company under the command of Bhacti Tha'pa'. The bavildar $2 \times 2$
brought a letter from Bhawaini Singh, ordering the Niti people to render every assistance in their power to us; and that, if they should not do so he would levy a heavy fine upon them. The havildar came to pay his respects to us, and said, that he had received directions to pay every attention to us in his power, and that he should immediately procure carriers. We gave him five rupees in Timashas, as an earnest of what he might expect if he exerted himself. He promised, that we should start to-morrow. In about an hour he returned with three other Sipahis, and twenty rupees were tendered to him as subsistence money to the carriers. He refused this at first, saying that our effects were to be conveyed free of expense to Jbsht Math. This we declined, saying it was improper for people coming on objects of Dharris (piety), to have baggage carried without hire; and he took the money.

September 8th.-At $12^{\text {b }} 30^{\circ}$ we began our march. At 3800 paces reach Gamsalk, whence the people took up our loads immediately. At 3315 cross the Sankha of the rivulet from the right, now much swollen. At 4182 reach Bampa. Here the loads were again carried on towards Pharkia; and at 4886 paces ancamp to the north of our former ground near the village, at $4^{h}$ 55'. Wind high and some rain. The crops of Phaphar, buck wheat, are very good. These with the Awa-jous are nearly ripe. Barberries are affording a second crop. The Shikari, who received from us two rupees on the banks of the Chang-lik for killing a Baral, was engaged at Gamsalí watching the crops, and said he was debarred using his gun by the Seytinas until the crops were got in, as snow would certrinly follow the explasion. We respected their prejudices, and did not go out, although the black partridge tempted us to do so, in pursuit of them, by their frequent calls.

[^25]The villagers of Pharkiah made much hesitation in taking up our loads, notwithstanding the Gorkhalk havildar threatened them with a fine, and offered a deduction of two rupees from their payment of revenue. At length they agreed, and a party set off. At 4900 paces cross the Sankha over the Dauli, at the place where a wall is built with a door in it for the purpose of preventing the goats and sheep laden with salt and wool, coming from the U'ndes or northermost part of Butan, springing into the river. Whilst taking a little rest upon a stone, I heard the call of Chakors on some rocks of great height, to which I gained access by a steep, long, and difficult route. Whilst clambering up, I had very nearly placed my hands upon a brown snake which had got half its body into a hole, before I was able to strike it. I succeeded in getting three Chakors, one of which was of great size, and had large double spurs, one above the other on each leg. At $4^{h}$ 35' reached Malart, baving come 5740 paces. The crops of Millet, Phúphar, and Awa-jou look well. The bed of ice, which filled the bed of the Malari river, has disappeared, but the tops of the high mountains to the east are covered with snow.

September 10th.—Thermometer $54^{\circ}$. Rained till 11. Halted on account of our loads not having come up yesterday. As far as Latá sonthwards, the country is called But'hant, bat it is understood that the Rengni river separates that country from Hinduistan. The Butias pay a small sum of money annually to the $U$ nias, or its value in kind; and the quota of Malári is six rupees, which is commonly in barley. The inhabitants of the whole tract between Látá and Niti complain much of the extortions of the Gorkiahs. The poorest man is compelled to pay a poll tax of four kacha rapees. This has caused many villages to be deserted; and the population is now much diminished. This evening whilst leoking at our goats, a Malari man came to us and entered into conversation. We assed haw it hap-
pened that one portion of the village was in ruins, and that so many of the houses were in such a state of decay? The former inhabitants, he said, were dead; and when inquiry was made, if there had been any sudden and violent sickness, he answered, that, of the particular quarter to which we pointed, the tenants had been plundered of their goats by the Juaris ; that, unable without these animals to carry on their usual traffic of grain and salt with the Unids, they were deprived of the means of paying their rent to the Gorhiahs, who took the remainder of their cattle, their cooking utensils, the rings out of the noses of their wives and daughters, and seized their children as slaves. Many persons were actually starved to death, and others fled. Including the regular rent, he said, the inhabitants of Malici had an annual sum of 1000 rupees forced from it, although the first only amounts to 250. "In the time of our RAjás," said the man, "these yards, now empty, were filled with goats; each old inhabitant had one house to place his son in when married, and another for his daughter, who had a portion in cattle. We were then, if not wealthy, at least at our ease, and occupied and happy. At present we are poor and wretched. If we had masters like you once again, these pens might contain the same number of cattle as formerly; but at present, if a man by his industry raises a small stock of goats, a Juari or a Dharmi plunderer attacks him and carries them off, and we can get no redress from our present masters, nor are we strong enough to resist or make reprisals." Independently of the direct plunder they obtain without uny other caution than putting a number of men under arms, the Judris are interested in destroying the trade of the Nitt Ghati, in order that they may have a larger proportion of the profitable traffic with the $U^{\prime} n d e e^{s}$. At night, the thermometer was $58^{\circ}$,

September 11.-Thermometer $51^{\circ}$. March at seven by the route we came. At 3575 paces cross a sankha
over the Dauli to the right bank. The descent from hence is very rapid, and the stream is much broken by vast fragments of rock and heaps of timber which have been much accumulated since our passing upwards. In one place the river has worked its way under a kind of arch formed of these materials. At 6240 paces reach the village of. Jhelim, now in ruins with the exception of two or three houses. A villager said that some time ago De'b Singh, our Juari acquaintance, swept the country during the space of two months, and carried off two thousand head of goats, sheep and neat cattle, without receiving any molestation from the Gorksahs, or being compelled to make restitution or any kind of reparation.

September 12.-Halt at Jhelim, as our loads did not come last night.

September 13th. -Thermometer 520. March at seven and half. A. M. ; no tidings of the loads. The village of Jhelim is situate on the face of a hill considerably higher than the road from Latta to Malárt; descending therefore, we fell into the old route., On the road we were met by a messenger from Bhawa' in Singe Ne'gi, with a letter from him, and another from Jagrup, jamadar of the party now at Baragaon and Jóshi Math. The former stated, that the Gorkiahs had distressed him much on account of having assisted in forwarding our baggage; that his life would have been forfeited had we not returned by this road ; but that now he was perfectly at ease, and disposed to do every thing in his power to serve us. Jagrup said, that he would take care that we should have every facility that he could afford us in our return: Bhawa'ní Singh stated, that we might take the Páin Khandl, or Búdán road, as might be most agreeable. At 5645 paces cross the Dauli over a very bad Sankho to the left bank. Here the road, which is very bad, ascends rapidly; in many places, little mote than a foot broad; and the projections from above oblige the
presenger to creep under them almost immodiately over the bod of the river, which is about 500 yards below. At 7025 paces reach the summit from whenoe the doscent is very difficult and steep: indeed were a person from below to see travellers above, he could not fail of foeling much anxiety for their situation. At 7650 paces reach our former ground and encamp. A Sankke had been washed away, and the loss of a long tree, not worth three supees in this country, endangers the loss of life to every one who attempts this most dangerous route, of which no conception can be formed by description. Let it suffice to say, that the very goats resisted attempting some parts of it for a considerable time; and that we were in more than one place reduced to the necessity of creeping on our hands and knees : yet every one arrived without accident, and the Jabtc climbed and descended in a manner that created admiration; but in one spot it was thought advisable that he should attempt an almost perpendicular face of rock, rather than be obliged to come down by another so steep that it was a task of great danger for man. By a long detour he reached us over a tract known to our guides only, but the man who had the care of him declared, that this care was superfluous, for that he could come down a surface as steep as was practicable for man. He had been brought to the side of the river, under an idea that he might have crossed; and from the height of the bank where I stood, I thought the attempt attended with little danger; insomuch, that the best swimmer in the party having declined the task, I had resolved upon trying. However, on reaching the bed of the river and passing one stream, I was deterred from the experiment, in consequence of the force and velocity of the current, the extreme coldness of the water, and the danger of being dashed against the stones or stumps of trees.

Although money had been given to the Séyanas of Jhelim for the hire of the carriers, they bad lept the
money, and not furnished a particle of food to the unfortmate people who had to bear the burden and heat of the day. The oppreseion exercised by the government renders natives equally oppressive in proportion to their power. Thermometer at night $62^{\circ}$.

September 14th.-Thermometer $58^{\circ}$. March at $9^{h}$ 25' along the left bank of the Dault; one of my finest goats, heavy with young, and the boldest in the whole herd, fell into the stream and was hurried away by the current. The bridge was about twelve inches broad and formed by a fir-tree, a little flattened on its upper surface, and a round sapling on each side. Whilst the goats crowded at the foot of the Sankho, two went on boldly, but when they had reached within a few feet of the opposite side, the pressure of the feet of the goats had pushed forwards one of the side spars, and unluckily that on which a goat was; one end fell down, and the other tilting ap, threw the poor animal into the stream. This spot has brought me much disaster; for it was on its bank, within twenty yards of the Sankho, that the pandit's slave dashed my watch from my girdle upon the stones. However this accident did not affect me, although seriously inconvenient, one-tenth so much as the loss of one poor goat that cost only a rupee: but this latter had been attained with more difficulty than the watch had cost me. At 8025 paces reached the road running under the village of Tolma, which, surrounded by fields of the crimson marcha, looks very pretty. The marcha is a plant which I mistook in my journey upwards for the lal-sag of Hindústan, or the Amaranthus Gangeticus ; and the Sipahts, who had accompanied the party which went in 1808, to survey the Ganges, fell into the same error, and used it as a pot-herb. In a short time, those who had eaten much of it were affected with purging and soreness in the inside of the mouth. The natives of the hills, however, employ it without injury whilst it is young, but I neglected to inquire in
what manner it was dressed. I thought we should be able to reach Láta this evening, and therefore pushed on. Having arrived at the foot of the mountain (which we ascended on leaving Lata) the sky became suddenly clouded, and large drops of rain, with gusts of wind, announced an approaching storm. As the day closed rapidly, I saw it would not be possible to pass over the rugged mountainous road without accident, as much of it lay on the edge of the cliff over the river, and therefore determined to take up my lodging for the night. A small cavity under a ledge of rock just sheltered me from the rain. Having stretched my carpet and blanket on the ground, I went to bed dinnerless; and my companion fared no better. The principal part of our servants remained behind taking such lodging as they could find: but they were much better circumstanced than their masters, as they had their food along with them.

September 15th.-Thermometer $58^{\circ}$. At eight A. M. began our mareh. The town of Lata, consists only of eight or nine houses, and a temple of Nanda Deba, at which officiate some priestesses, who do not, according to report, either take a vow, or observe the practice, of chastity, being allowed what intercourse with the other sex they may think proper to take, without restraint. Jow a'mir Singii had now a knowledge of our real character, and said that he would fetch the loads from Malari as soon as he should have seen his brother. He was anxious to have a goat to sacritice to the deity of the place in gratitude for our safe return ; but I believe that his own appetite had a greater share in inducing him to prefer this request, than any motive of religion. Jowa'hir says that provisions are very scarce, owing to the visitations of the locusts, with which the country has been plagued for the last two months. For the preceding two days we have seen many locusts directing their flight towards the $\boldsymbol{U}^{\prime} n d \ell_{s}$, where they breed. Thermometer at night $72^{\circ}$.

September 16th.-Thermometer $64^{\circ}$. March at 8. At 1340 paces we come to a Sankho over the river Rení which separates Bútan from Hindústan, and falls into the Dauli. At 7542 encamp in the fields belonging to the village of Dak. Our dinner consisted of some pumpkin boiled with dal, and hunger made the dish palatable.

September 17th.-Thermometer66 ${ }^{\circ}$. Marchat8 A.M.; rain increases to such a degree as to prevent us enjoying the pleasure of the shade of the horse-chesnut and rhododendron trees under which we pass. In one of the former were monkeys feeding heartily on their fruit, which is relished by few animals. At 1140 paces reach the summit of the ascent; and at 3145 reach a fountain, near which we encamp, on a spot of uncultivated ground surrounded by the Sarson, or mustard, in flower.

The Nishänchí or colour-bearer of a company belonging to Bhacti' Tha' ${ }^{\prime} \mathbf{a n}^{\prime}$, paid us a visit. Afterwards Bhawa'ni' Singh Ne'gi' made his appearance. He says that our loads shall be brought from Mallari in a short time, and that he will charge the expense as a setoff against our account of 101 rupees advanced to him on his bond. Thermometer at night $64^{\circ}$.

September 18th.-Thermometer $69^{\circ}$. At noon $74^{\circ}$. Night $64^{\circ}$. Many showers of short continuance but smart in the course of the day, with intervals of sun-shine and heat. The jamadar Jagrup sent some rice and flour last night, and to-day a present of game.

This man was with Sheristha Tha'pa' at Sirinagar in 1808, when Mr. H. came with a party to survey: but on account of his disguise did not recognise him. He gave the following account of the transactions which had reached us in a confused manner, whilst in the LIndés.

Dasrat'h, who was formerly in power at Sirinagar, but had been displaced, had written information to Catmandu, that Bhacti' Tha'pa' had allowed two' Europeans to go through the country in his division into the Undés. The Nepalese government sent Bhacti' a reprimand, on the receipt of which he sent Jagrup with thirty men to examine into the foundation of the reports propagated by Dasrat'r, with whom he had long been at enmity. On Jagrup reaching Baragaon, he found that Bhawa'ni' Singe had left his house to avoid the oppression of a party of Dasrat'h's men, which to the amount of ninety had taken possession of his premises, broken open his granaries, and used the grain they had found in them. He had armed all his dependents: but on J $\triangle$ GRUP sending him assurances of his personal safety, he went over to him. Bhawa'ni' then made a declaration of his ignorance of our being Europeans, and of his having received the sum of eighty-seven rupees to forward our baggage to Niti. Dasrat'h, in his letter to Bhactí, accused Beawa'ni' Singh of having taken three thousand rupees, and made use of this falsehood, as a plea to ruin Bhawa'Ni' by extorting that sum from him. The report forwarded to Catmandu stated, that we had gone with an intention of building two forts, one at Niti and one in the U'ndEs, to garrison them with Marchas, and thence proceed by Bubesin to join the Sikhs, with whose arms we proposed to invade the country. The accounts amongst the country people were ridiculous enough. One reported that a letter had arrived from Delhi, stating that we had stolen the philosopher's stone, and three lacks of rupees from the Company's wife.

[^26]To this the rainy state of the weather was objected : but it was promised that we would go as soon as the weather became fair. The motive he assigned for our going thither was, that we should be able to get provisions easily, which could not be done at Baragaon.

Septenber 19th.-Thermometer $59^{\circ}$. During the night, the summits of the neighbouring mountains have been covered with a fall of snow. Halt at Baragaon. About 2 P. M. it began to rain smartly and continued without intermission until 6 , leaving the air cold and disagreeably damp. After sun-set thermometer $16^{\circ}$.

September 20th.-Thermometer $57^{\circ}$ : The jamâdár having strongly represented that they could not procure provisions without the greatest difficulty at Baragaon, but that they should be able to get abundance at Solúr, we agreed tomarch as far as Jbshi-math to-day, provided it did not rain. At $11^{\text {h }} 15^{\prime}$ we marched. At 1300 paces cross a watercourse from which the air before us was filled with an immense body of locusts, some of which were of a light yellow; but the greater number of an orange colour. On heaps of weeds that were dry, and on stones, they assembled by forties and fifties, and remained quiet in the sun-sline; but others were actively employed in eating the heads of Mandua* now nearly ripe. They had been here about two months, but had not done as much mischief as I should have supposed. A leopard made frequent visits to this neighbourhood, had taken away three children, and killed two men; but the place to which he resorted with his prey was unknown. At the same place where we encamped before, we now pitched our tents, close to a temple. Every other spot for a great extent was occupied by crops of rice, Marcha, Mardua, and Sawaht t.' The people of

[^27]the neighbourhood said, that the leopard would certainly make an attack upon our goats in the night; and we took precautions accordingly by setting a strong watch with loaded guns, and keeping up a good fire.

September 21st.-Thermometer $55^{\circ}$. The leopard has committed some ravage in a village to the East of Jóshi.math. In this village my goats were yesterday entangled, and with no small trouble and loss of time I extricated them out of the filthy and intricate roads. Goats are cleanly animals : when they reached one filthy spot, the leading animals stopped, and the whole flock was delayed in a narrow path overhung with long grass, and from which issued a streak drawn upwards by the heat of the sun, that was scarcely supportable by man, and must have been greatly annoying to the animals shut up in an alley of this offensive vapour. At length they clambered up some large blocks of stones.

Our march did not take place till $\mathbf{g}^{\text {h }} 15^{\prime}$, owing to the Gorkha party having served themselves with carriers for their loads, before they gave any to us. On reaching the foot of the hill, half way up which are many detached cottages, which form the village of Solúr, 1 found my flock, which had started at an early hour. We went up, and after an ascent of about a mile through narrow paths and fields of Marcha, Sawa, and Sarson, reached the residence of Bhawa'ni' Singh, at the close of day, where was a stone threshing-floor almost covered with hemp, on which we pitched our tents. Gave the body of a goat which died, to the Gorkia Sipáhis, who requested to have it for their night's repast.

September 22d.-Halt. Bhawa'ni' Singh has not come here according to his promise. We found Bandhu Thasa"s son, the nephew of the general, Bhacti', sick of an intermittent.

September 23d.-After breakfast we set off accompanied by a farmer, who said that he thought it likely we should find wild hogs, bears, deer, and pheasants, if we would go up to the top of a high wooded mountain to the left, which formed part of the great Tügasi range. We ascended a steep ridge and passed through a forest of fir, cedar, and cypress," with sycamore, horse-chesnut, walnut and yew trees, the latter are called Tüner. The cedars were of enormous size; one measured 18 cubits in girth at 4 feet from the ground, and was about 180 feet high; another that had fallen down was 159 feet in length: and trees of this size were not uncommon. From this eminence $I$ had a fine prospect, in which a cascade forming the source of the Patal-Ganga, that ran in the bottom between two ranges of hills, formed the most prominent feature. This cascade appeared to have a fall of from 80 to 100 feet and was about 20 feet broad. It had almost escaped me to remark, that in our retwro we met with very large Service trees, bearing fruit much larger than those of this tree in England. I stopped to examine some plants of hemp sown near a house; many of these were twelve feet in height, and few lower than ten; where thinly sown, the plants had very thick stems and sent out many side branches; but when numerous, they were thin, tall and without branches. The person, who sowed them, said, that when the plant was supposed sufficiently ripe for pulling, which is considered to be the case when it is in flower, it is placed on the roof of the house, and exposed to the sun till thoroughly dry; when the bark is stripped off and tied in bundles for use. During the time it is on the house, care is taken to prevent its being wetted, as wet is supposed to weaken the fibres. In stripping, one half of the bark is separated from the wood, by the nails of the finger and thumb of one hand, whilst the finger and thumb of the other are placed, one upon and the other under the bark, during the

[^28]the time that it is drawn from the butt towards the point of the stem : this process is performed on the other side, and the bark by the two operations is completely taken off. From what I have seen of the growth of hemp in this country, I have no hesitation in saying, that its luxuriance is such, when sown upon the lands of valleys in Garwhál and Pä̈r-khan"dí, as to be capable of supplying a great portion of the navy of Great Britain, if its value in Englard will cover the freight and other expenses.

September 24th.-The $\mathrm{Nr}^{\prime}$ GI"s mother last night informed us thatJawa'hir Singh had absconded as well as Bhawa'ni' Singh, in order to avoid the oppression of the Gorkiahs. She gave an afflicting statement of the grievances inflicted by them ; assured us, that our loads should be forwarded, and that Bhaw inin' Singe would not be faithless to his engagements: but that we should not see him, as both he and Jawa'hir feared to be seized and sent to Sirinagar. She was very anxious to impress us with a belief, that the warmest wishes of the whole of her family were with us. We then desired Bandhu Tha'pa's son and the jamadár would come to our tent, and remonstrated with them on our situation. Bandhu Tha'pa's son and an old man his governor expressed their concern at the dolay in our journey, and said they were ready to accompany us to $P$ allf, where we should see Bandhu Tha'pa', and that we might rely upon it our effects should reach Pall within three days after our arrival. We were obliged to remain satisfied with this explanation, but said, that if we had not an account of the baggage being on the road to us in three days, we would certainly march.

September 25.-As a person acquainted with the management of goats and the culture of the mopntain rice would be useful in going to Calcutta with the former, and perhaps eventually to England, I gave the sum of thirty rupees for a slave offaped to me by Jawa'bir

Singri, who was apprehensive that he would be forcibly taken from him by the Gorkhas if he did not dispose of him.

September 26th.-The jamâdár Jig-ru'p came to take leave. As I saw he expeeted a present, I filled a China box with five rupees in Timishis and gave it to him. He appeared highly gratified with this, and we saw no more of him.

At $9^{\text {h }} 15^{\prime}$ left the village of Soliur. At 8380 paces reach Panki-math. The latter part of this journey was very embarrassing, as the rain now was continued and heavy. The path was covered with a glaced surface, so slippery, that few of the party escaped without one or more falls. When quite dark I reached the Garíl Ganga, whose current dashed along with great impetuosity. Having safely reached the bank, we were involved in the deepest darkness, and could only ascertain that we were at the foot of a steep hill. Here we were obliged to wait about three quarters of an hour, till a light was brought which shewed a steep narrow path much obstructed by stones and long grass. With much trouble we collected the goats and forced them into the path; but they frequently stopped. Not being able to get them on after a stop of unusual length, I endeavoured to pass through them, and when I got to the foremost rank, felt myself suddenly slip through the grass over a steep ledge, which came along the' edge of the path, and down the face of a bank or precipice; for the darkness prevented me from judging of the extent of the danger. A tuft of grass, after I had a short fall, came between my legs, and in a few seconds more I found myself seated upon a stone as if upon a saddle, my feet not touching the ground. By dint of groping about, I found some stout tufts of grass a little above me and well within my reach. These proved firm and enabled me, by there being a succession of them, and by placing my toes:
against the face of the bank, to raise my head to the level of the path in the grass; and the hand of a servant drew me up.

September 27th.-Thermometer 60. This is a de serted village called Panki-Math, situated on the top of a hill, but surrounded, except towards the river, by an amphitheatre of others still higher. Bandhu Tha'pa's son's party had turned out the inhabitants of a village on the opposite side of the Garúl Ganga, and taken refuge from the rain of last night in their houses. I thought it right to halt. Thermometer $67^{\circ}$. At four P. M. the son of Bandhu Tha'pia and his party, marched to Pipal Kotí to-day, and was soon followed by Jı Gru' P jamadár and his party.

September 28th.-Thermometer $53^{\circ}$. At 1462 paces reach the steps, which in going up, were an object of terror; but which now surprise us that we should have thought them formidable : this change in our sentiments has been worked by our having become familiar with worse roads, and likewise by the declivity being concealed by grass. Encamp at Purutkothu, at $1^{\mathrm{h}} 45^{\prime}$, distance 3225 paces. The Gorkhas wished us to pitch close to a small house or fort, they were preparing, to command the road to Bhadrináth, and that of the Jhúla across the Alacananda to Bandháth, and the temple of Kédárnát'h. The invitation was declined for obvious reasons.

September 29th. Halt this day. We are told thaton the summits of the neighbouring mountains there was a large red tiger, which feeds on elks and the largest kind of game, but seldom comes to the lower part of the country. He is described to be of the size of a small horse, his neck is covered with hair so long as to fall over his face and almost conceal his head, as he comes down hill. From this account, it is presumable that the enimal is a lion.

September 30th.-Thermometer $60^{\circ}$; noon, $78^{\circ}$; night, $68^{\circ}$. This land was given by the Rajas in Jaghir to Bhadrinath for the maintenance of the officiating priests; and the Gorkhas have not disturbed the tenure, through they live at free quarters upon the farmers, when they come either to collect rents in the neighbourhood or for any other purpose, as in the present instance, when a force is collected to impose upon us a belief of their strength.

October 1st.-Bhawaní Sing, by message through Harki Deo, requested usto be particularly on ourguard against treachery, which he apprehended would be employed against us. The Gorkhalis having sent some coolies, we marched with due precaution, our fire arms loaded, at half past two. At 1135 paces encamp on a narrow plot of grass formerly cultivated.

October 2d.-Thermometer at sun-rise $51^{\circ}$; noon $82^{\circ}$; night $61^{\circ}$. This day about $11^{\mathrm{h}}$, the subadar came to pay us a visit. He is a relation of the deposed Palpa Raja. It is worthy of notice, that two thirds of the troops of Bhacti Tha'pa', consist of the natives of the subjugated countries.

October 3d.-Intermitment fevers are very common at this season, and attributed by the inhabitants to the rain which falls almost continually at the end of Bhadon, and the great moisture of the soil. But to the humidity of the atmosphere and the ground, may be added, the vegetable trash they eat, and the close and filthy state of their houses, and especially the accumulation of all kinds of dirt round their habitations.

> October 4th.-Went, accompanied by a few Gorkha sipahts, in pursuit of bears; saw and wounded several.

October 5th.-A letter had come from Bandhu 2 L 2

Tha'pa' stating, that, as he desired much to meet us, he wished we would march as soon as possible, and he would wait for us at Chandpúr.

October 6th.-No coolies came. The jamâdár said, we should certainly have them the following day.

October 7th.-Thermometer $60^{\circ}$. At $9^{\text {h }}$ begin our march. As I thought it probable, that I should not be able to overtake the goats before night, and as the road was bad, and the sky looked wild and threatening, I endeavoured, as I passed some rocks, to find out some cavern in which I might take up my lodging, for the carriers were so far behind as to leave me little hope of their arriving with my bed. I saw at a distance from the road a deep recess in the face of the rock, and congratulating myself on my good luck, went to examine it more closely, when I suddenly felt an offensive smell, and proceeding to the cave, found the dead body of a man. In what manner he came by his death, I could not learn from the appearances about him: but, as he was not stripped and had white clothes, I suppose he was some pilgrim from Hindüstan. At 8900 paces, I found the goats on a sandy and stony part of the bed of the Alacanandra. My bed arrived about ten o'clock, and my tent in the middle of the night. The Bichari pretends to be our friend, and recommends us to be on our guard. We set fire to piles of firewood, in order to keep off the leopards.

October 8 th. -Thermometer $56^{\circ}$. March at $9^{\text {h }}$. The deserted condition of the villages threatens this unfortunate country with the loss of all its inhabitants, if it remain under the dominion of the Gorkhalis. It is odd enough that every governor, and indeed every sipahi, sees what is to happen, but no one seems to make any attempt, on principle, to check the threatened depopulation. The governors of the different districts remain in them but for a few years, and it appears a maxim with them to make
hay whilst the sun shines, whatever ills befall the unfortunate rayat from their exactions. Thermometer at night $65^{\circ}$.

October 9th.-Thermometer $59^{\circ}$. It began to rain briskly soon after I commenced my march, and continued two-thirds of the way. The road lay through a country, that once was highly cultivated, but which exhibits now little more than traces of what it has been. This day I found two men under the Pippal tree near the Nandákní, who wished to become my servants: one of these was a one-eyed fellow who had assisted in carrying our loads from Najibaibad. As they seemed strong enough to be useful as carriers, and said they were starving in this country, had no connexions, having lost their wives, I took them into employ. Having mentioned the general features of the country, we went through this day, in our route upwards, it is unnecessary to say more than that the luxuriant vegetation had so altered its face in many places, as to render it a work of some time to recognise them. After a very complete wetting, the feel of the sun which showed itself nearly unclouded, near Karn Prayag, was not unacceptable. We reached the Pindar-Gangá at 6357 paces, when we crossed the Jhúla. On the opposite side, on a stone Chabitra, under a Pippal tree, we found Bandhu Tha'pa', who rose at our approach. He is a stout old man of seventy, plain in his manners and dress, and altogether not superior in his appearance to one of the zamindars of Ghazipuir. He sent word by the Bichari, that when we had eaten and taken some rest, he would wait on us. He came in the evening accompanied by the Bichark and the Kamuniah. On inquiring what were the motives for our passing through their country, we replied, that we wished to see the horses of the U'ndés and to procure some shawl wool goats. Why did we disguise ourselves? To this it was answered, that he must well know it was the general custom of pilgrims so to do, but that we had a farther inducement, for, if this had not been done, we should not have been able to enter
the $U$ 'ndés, as he mast not be ignorant that all entrance to that country is interdicted to the Gorkhalis and to Europeans also. Why, he next asked, had we not applied for a Parwáná? Our answer was, that had we waited the time necessary for procuring a Parwáná, the season for going through the Himáchal would have passed; but that had we found the horses required, we should have applied regularly for permission for going through the Gorkháli country. We then inquired, if he had to complain of our having committed any violence or irregularity in the course of our march. He answered in the negative. He was then informed, that hundreds of the Nipalese went through the Company's provinces in any direction they pleased without interruption. He admitted the truth of the remark, but said that he wished us to remain five days at Karn-Prayág, and afterwards said that this period might extend to fifteen or seventeen days, until a decision should be formed by the different chiefs as to the line of conduct to be taken. We said that we had been much detained at various places on different pretences, that our money was nearly exhausted, and that we could not make any further halt than one day, when we would proceed towards Pali, where we would halt two days. He said, that he was obliged to go to Sirinagar, on account of the Das'hará, and we might not find any bearers the next day, but that we might depend upon them the following day; and that he would order the Bicharí to attend us to Chilkiah. We parted apparently on the best terms; and Bandhu Tha'pa' was much pleased with his present.

October 10th.-At 8 o'clock Bandhu Tha'pa' set off in a Dandi or blanket, collected in gathers at the two ends and tied to a long pole. He was carried by two men, who must have been abundantly loaded, as he cannot weigh less than fifteen stone. The town of Karn Prayag, contained many inhabitants in 1808 ; but, at present, a few Brahmins, who attend the temple, and some mullahs who take care of the Jhíla, constitute the whole number.

October 11th.-Thermometer $55^{\circ}$; noon $80^{\circ}$; night $61^{\circ}$. After having completed 3358 paces in a southerly direction with some easting and westing, we encamped near a Pippal tree, having the Pindar on our left, and the Chandpur nullah emptying into this river in a broken stream a little before us, and about a quarter of a mile below our former ground of encampment. The soldiers along with us have scarcely any cartridges, and would have the worst of it, were they to attack us, but I trust this is not their intention, although I perceive their numbers are increased.

October 12th.-Thermometer $50^{\circ}$; night $57^{\circ}$. A servant, I had brought from Pípal Kótí, had been several times at Adh-Bhadri, and stated that the road on the right side of the Chandpur nullah was shorter and better than that by Tope or Támbá Kbti, and that the people from this part of the country always went by this road. As it was a great object with me to save distance, I resolved to go by this road; my companion determined to go by the other. I considered this a matter of little consequence, as the separation would only be for a few hours. Whilst on the road, a stout Gorkhali, whom I had not before seen, and who from his dress appeared of a rank superior to the rest, spoke to me in a very insolent tone, and placed himself in a menacing position, striking his musket violently against the ground. I snatched my gun from my servant, cocked it, and stopped with the intention of shooting him if he advanced a single step towards me. Another soldier, seeing what I was about, ran, begged me to desist, and abused the man who had been impertinent. The village was on a very high spot. I left my goats a few yards behind, and with my Khaldsí, Cheta, went into a square flagged, on two sides of which were low buildings for cattle, and in front a high Chabutra connected with some houses. On the edge of this stood twenty-five Gorkhali Sipahis, principally new faces, and on the flags
below were my loads. I asked who was the head of this force, and, on his being pointed out, asked him what was the meaning of this deception. He said it was expected that I should halt there, and every thing was ready for my accommodation; I told him, that it was my intention to cross the Chandpúr nullah, that night, and desired to know if he meant to furnish bearers. He answered, that no bearers were to be had, and that it was impossible from the lateness of the hour to reach Chandprir. I saw that nothing was to be expected in the way of aid. A guide was even refused. I, therefore, ordered my people to throw away my things of least value, divide the rest, and march.-Well aware that it would be impossible for me to reach the banks of the nullah, as the night was setting in, I pitched my tent on an elevated spot close to the Math. I placed a sentry on each road, and had a fire made sufficiently large to throw light upon them. My men were placed upon the Chabutras, and altogether my position was more respectable than could be expected on such an emergency. The fakirs, who live at the Mat'h, desired us to be watchful, as a very large tiger had lately taken off three men from that neighbourhood.

October 13th.-The night has passed in quiet. I marched about 9 , and in about an hour over a descending and slippery road came to the steep bank of a watercourse ; Mr. H. sent a note, stating that he bad been stopped at the village of Tope yesterday, and desired to go to where I was. This he refused, and by shewing a firm determination to proceed was not opposed, but the Gorkháles left behind, at the moment of his going on, were busily engaged in putting flints in their guns. He Lhad reached Adh-Bhadri, was under arms and desired me to join him as soon as possible. In about an hour, I found Mr. H. encamped in some flat ground between the temples of Adh-Bhadrí and a nullah. In a short time the carriers from Bandoli, most probably instructed
by the Gorkhalis, all at once started up and ran off. It is believed, that this was done to delay our marching. We here disencumbered ourselves of the least valuable of our property, and divided the rest amongst our servants to carry. In the evening we set off. The Gorkhális soon followed us. We were overtaken just as on the point of leaving our ground, by Harkh Deo, who said Kanak Singh was in the rear of the loads, which moved very slowly. We reached the Mallsi mulberry-tree. The Gorkhalis encamped about a hundred yards above us. The march of this morning was about 4000 paces, that of the evening 2500.

October 14th.-Thermometer $48^{\circ}$. At 3500 paces I reached the summit of Dewáli-kalkt Ghátí, having for the last mile proceeded through a fine forest of horsechesnut, walnut, ilex and rhododendron of the red kind: Many people have, it is said, been killed by tigers at this spot, within the last three months. At 5058 paces, cross the rivulet. Here we stopped to eat some dál and rice. Instead of stopping near us, as heretofore, the Gorkhall's proceeded about two miles in front to dress their victuals, and to make arrangements for stopping us at the Sobha pass. Had we not been embarrassed by our goats, a naarch across the Gadra to the right, leaving the Rámgangá to the left, and steering towards Langúr green, would have completely disconcerted their schemes, and have brought us into Mr. H's jaghir near Laldang. However, circumstanced as we were, it only remained for us to persevere, until we should have gained the Sobha pass, beyond which it would be difficult for them - to stop us. After taking our frugal meal we proceeded. The distance from our halting-place is 2600 paces, and we encamped upon a flat on the left bank of the river, where we were met by some Domes with musick. At night a farmer brought his son that was sick, and expressed his concern at our situation, believing us in confinement. When it was explained that this was not the
case, he said, that it must happen, as all the troops were to meet at Sobha, and detain us there, as they had failed of effecting their purpose before. Orders had been issued to all the farmers to assist them, in case we should resist them. Here again our escort departed for the night to a village at a distance, and had we not had the goats, we might have availed ourselves of this opportunity; but I had determined, as long as it might be in my power, not to quit the animals which it had cost me so much pains to obtain.

October 15th.-Hoar frost, thermometer $47^{\circ}$. I marched with the goats. After having gone about a mile, I observed, that I had passed on the right, and below me, a body of about 80 or 100 men armed with muskets. They were evidently surprised, and hurried much to overtake me. I fell to the rear of the goats and continued my pace; a man asked me where Hearsey sahib was, and desired me to stop. I asked him who he was, and by what authority he took the liberty of interrogating me. He replied that he was the jamadár of the party, and was sent to prevent our proceeding until his subadár and the principal zemindárs of the country have a meeting with us. I told him, that I was proceeding quietly on the high road, molesting no one; that I expected not to be molested, and that I should resist in the best way I could any attempt to stop me by force. That we had promised Bandhu Tha'pa' to stay two days at $\cdot$ Palk, and that we should stay that time according to our word. He then dropped his tone, and requested me to order my people not to go on, which 1 refused. As the soldiers had gathered round me, and were closing, I told him that if he did not order them to go to a distance, I should consider myself attacked and act accordingly ; and advised him to reflect on the consequences which might ensue by his forcing me to defend myself. He ordered the soldiers to keep farther off. I continued to march, followed by the whole
of the party. After reaching the bank of the river which was forded, a man of Bandhu Tha'pa's party came to know if I wished the goats to be carried; for this civility, I thanked him, but declined giving him any trouble, save that if any of the goats should chance to be carried down the stream, that he would order his men to stop themjust above a rapid at a short distance. I continued my march, when the jamadár said that if I would stop only one day, opposite Suméru's house, the meeting would take place, and we might proceed. I refused to stop any where short of Mehelchowrí. In half an hour more I saw a large new house half way up the hill on the right, and on the plain close by the road the party of soldiers was assembled, they having preceded me from our last conversation; a tall man, whom I understood to be Suméru, came forwards, made a salam, spread a blanket, and begged I would go to his village until the subadár should come. I said that I was upon the principal road; and I was determined not to leave it until I should arrive at Mehelchowri. He requested me to stay only one day, during which the business would be settled. I told him we had been much deceived before, and at $P$ alf only would we halt willingly. I resolved to wait for my companion coming up, that we might defend ourselves with more advantage against the force which now amounted to as much as the country could muster. Wishing likewise to draw Suméru away, I gradually, whilst conversing, walked back again and he followed. At a proper place the note from D. S. was given. ${ }^{-r}$ He said he knew its contents, and would furnish provisions and bearers, if we would only stop one day. In a short time Mr. H. came up; he was of opinion, we ought to get beyond the Sobha pass, as if they failed to stop us there they could not have an equal opportunity elsewhere. I agreed with him and took charge of the advance, whilst he brought up the rear. The goats were with me. A body of Sipdhis ran before to gain a narrow part, which confined the path. One went through the
goats; I followed to push him from amongst them, and found about twenty men had formed a line upon the path. The man I had pursued, probably exasperated by being obliged to run in the sight of his countrymen, put himself in a menacing position on the path. I retired a few paces, dropped on one knee, in order to get a steady and low aim, when another advanced humbly, and the person, who appeared so resolute, threw down his musket and presented his neck also. I ordered the soldiers to quit the path, and they drew up on the side for me to pass. Whilst this was going on, Mr. H. was engaged in warm conversation with the Sipáhis behind, had formed his few men into two divisions, and agreed to no other terms than those I had before proposed, viz., that we would go to Mehelchowrí and wait there the remainder of the day. To this place we went ; and, having only made 4500 paces, encamped under the shade of a mulberry tree and salinga tree, close to the habitation of a Gosain. This personage was tall, thin, with a long beard and about eighty years of age. He approached with much respect, and desired me to sit down on part of the Chabutra under the mulberry, surrounded by stone figures of deities. In a short time bringing a pomegranate, he particularly requested that we would stay a few days, as violence would certainly be offered if we did not. He represented himself to be an inhabitant of Oude; and, after residing here forty years, was anxious to die at Benares. He was tired of living in a country where religion was neglected, and every thing tended to desolation. In the evening a Brahman who was called a major, and who we understood executed the writing business belonging to the Company, now made his appearance with a message from the subadar, stating that to-day he was much engaged in ceremonies of ablution and worship, but that early in the morning he would certainly wait on us. To this we replied, that we had made a very short march to accommodate him, that he had not come agreeably to his promise, and that if be were dis-
posed to see us, we would wait for him at the Khutsar Tudrah, on the south of the Sobha pass. The major represented, that it would much gratify him and the whole party, if we would stop here four or five days. This we positively refused. The old pandit was very desirous of our stay; but, as we plainly perceived that time was all the subadár wanted, we resolved to persevere. The appearance of one of Mr. Rutherford's agents, who said he was come on his master's business, makes us disbelieve the report of there being any rupture between our government and the Gorkhalis, and makes us still more desirous to avoid actual hostilities.

October 16th.-Morning very foggy. Thermometer $52^{\circ}$. We were stirring very early, and as the Gorkhdilis were round us in considerable bodies, I had my breakfast placed on a stone and ate it, with my gun in my hand. Many jamaddárs and havildars came round Mr. H's tent, and the soldiers closed. I called to the principal jamadár, and said, if the soldiers did not immediately retire, I should look upon their presence as an hostile aggression, and act in consequence. Seeing me thoroughly prepared, several of the officers came, offered their necks, and desired me to take off their heads, as if they did not stop us that would be their fate : observing that many had got round me, I stepped away from them; and the servants, who had been sent off with the goats, said they were not allowed to proceed. I then saw that a body of about thirty had barred the path, were forming in a semicircle, and coming on to attack us. I called to my companion to prepare, and sprung into the path, desiring the soldiers to stand clear. The main body opened a little, and I independently advanced with too much impetuosity. A man or two advanced, and I shoved them back. My gun had in an instant as many hands upon it, as could find room to touch it, but they could not wrest it from me. I had at least seventeen or twenty upon me, but this rather prolonged than shortened the contest, as they
pulled in opposite directions. It would have been maintrined for even a longer time, had not one man got upon my neck and stuck his knees into my loins, endeavouring to strangle me with my handkerchief, whilst another fastened a rope round my left leg and pulled it backwards from under me. Supported only by one leg and admost fainting from the hand round my neck, I lost my hold on the gun, and was instantly thrown to the ground. Here I was dragged about by the legs until my arms were pinioned. When I had got up, nothing could surpass the savage expression of joy depicted in the countenance of the victors; nor was the ferocity of their actions much behind-hand. For fear of my getting loose, two soldiers held me fast by a cord, and every now and then gave me a violent jerk by way of letting me know my situation. I desired to be placed upon the Chabutra out of the crowd; and, after some hesitation, this was complied with. Mr. H., it seems, had little suspicion of so immediate an attack, as he was washing his mouth when the affray begun, and did not hear my call to him. Our servants were absent from the small pile of arms we had. I had only one armed man in my suite, having given over my other double-barrelled gun to Mr. H. for his own immediate use ; and to my servant who had a long duck gun, I had given the most express orders not to fire unless the Gorkhalis fired first. Mr. H. and the whole of our servants, except two or three who escaped this fate, I know not how, were secured ; Mr. H. was not bound, but secured by persons holding his arms. Some of the others were struck with the butt ends of muskets and much maltreated. In about two hours, during which I remained bound, the subadár made his appearance. He seemed quite a beau, just stepping from his toilette, saluted all the soldiery with a simpering smile of exultation playing on his countenance. He did not deign to salute either Mr. H. or myself, and we were certainly not in the humour to pay any compliments. After casting upon us some looks of survey, he retired to hold a council.

In a few minutes he came again, and having a carpet spread near Mr. H., seated himself upon it and entered into conversation. I asked him, whether the rope ornaments placed round my arms were the bands which connected the friendship of the English and the Gorkhdilis? Whether this was a conduct that was justifiable towards a traveller who entered into the country peaceably, who had demeaned himself in the most peaceable manner whilst he remained in it, and was returning peaceably towards his own home? To this he asked, why I went through the country in disguise? I answered, to avoid expense, unnecessary delay, and to enable me to get into the U'ndes. During this time I remained bound. He desired me to be seated: this I refused, until the cords were taken off my arms; which he ordered. The excuse he urged for not coming before, was that the day was one of great religious ceremony. If so, I observed, what reason was there for his having delayed not making his appearance till so late an hour, it being now near twelve. He stammered out some imperfect apology. I pointed out the bound people, and desired that either they might be unbound, or that I might be re-shackled. He said, that they all should be set at liberty; and two or three were loosed. In about half an hour the subadar left us, and after a long consultation, in which jamâdárs, havildars, and sipáhis bore a part, a letter was written to Bam Sar at Almora. This cowardly fellow had prudently kept himself out of the way, till the scuffle was over. By acting as we have done, we have got into a part of the country less remote from the plains, and more in the way of sending information of what has occurred. In the evening, our low country servants were unbound; but those we have hired to bring on our baggage, were still bound, as well as the Pandit and his nephew. The former acted with firmness, the latter was much cast down. I desired that some of my servants might go to attend my goats. This was acceded to. On looking over the events of this day, and reflecting on the consequences
which may result from them, I cannot but be grateful to the Author of all, for having given me firmness to bear my present situation without the dread of the death, now likely to cut short my career. About fifty people are set to guard us; and they are so noisy as to afford little chance of sleep to-night.

October 17 th. -This day was ushered in, by the hammering of a blacksmith preparing fetters. In the forenoon, the two Pandits were taken away, as we apprehended, to be put to the torture; however in this we were mistaken, as it was for the purpose of placing one leg in a square hole cut out of a heavy log of wood, and a strong peg being driven across the two sides of the notch retained the foot. Several of my servants, were shackled in this manner; and of Mr. H's. One of my bearers offered to carry a letter, as also did my goatherd. This man came up as a fakir, the second day after we had come over the Nití pass, and said he would take service, provided I would furnish him with victuals till we should reach the plains. He purposed going to the subadár, saying that he was a fakir, had only accompanied us for his victuals, and wished to depart. If he got permission, he said he knew what road to go by, to prevent being stopped at any of the Gorkháli chokis; and should, bating accidents, reach Chilkiah on the third day. I wrote a letter to Sir E. Colebrooke, open, relating the general circumstances of our situation, and that the only matter which could be laid to our charge, was going through the country in Hindu dresses. This, along with one from Mr. H. to his brother-in-law, Lieutenant Salmon, were put into a piece of my orange-coloured mantle, and sewn within the doubles of an old woollen wrapper, in which the fakir kept the instruments he used in prayer. He made his representation to the subadár, but was ordered back into confinement. This did not disconcert him. He was confident that he should be able to execute the commission he was charged with,

He said that he had eaten my salt, would not be ungrateful ; that he should not stop here, but having his beard shaved, and having changed his dress, he should proceed with an answer to Almora, or wherever we might be. He left me, and I suffered an hour to elapse before I looked for him. He was then sitting down on the ground with his blanket on his head, and arranging some wood in a bundle, as if for cooking. When another hour had passed again, I saw the heap of wood with a bundle of clothes laying by it, close to one of the sentries, but the fakír had disappeared. Should he succeed, we owe him great obligation, as the probability of our deliverance depends almost entirely on the representation $\operatorname{Sir} \mathrm{E}_{\boldsymbol{a}}$ Colebrooke will make to the chief of Almora. We desired the subadar to allow the major to write a letter from us jointly to the Choutra, Bam Sah, stating in general terms, that as we had been imprisoned, and bound by his order, we desired to be taken to Almora. We enclosed a note to Mr. Hawkins, mentioning the imprisonment. and requested the Choutva to forward it to that gentleman. I gave the major a pair of scissors for his trouble, and a rupee to each of the two soldiers, who were going to Almora with the letter. A reward of three more was promised if they brought us an answer on the fourth day. A considerable number of farmers was brought together by order of the subadar, in order to show them the punishment he had inflicted on the Sahib log; commiseration was depicted in their countenances, which formed a striking contrast with those of our guards. . The old Gosain continues his kindness in bringing all the milk his cow gives, morning and night. This is very little; but it shews his will.

October 18th.-About 10 o'clock, the fakir wasmissed. A great noise was made ; and a strict search for about an hour ; and persons sent out in every direction: however, I trust, that our messenger will have got completely out of their reach. This escape has made them doubly sigilant, and a man looks into the tent every hour at least.

October 19th.-The old Pandit, his nephew, and our hill servants, were released from their logs, but had their hands bound and were taken away to Almora. To the Paxdits I gave presents of money, and an order for a further sum on my agent; and in the event of their deaths, I made a provision from my effects for the maintenance of their families. We were told that our low country servants should now be released from their logs. An abbatis of stakes interwoven with brush wood was made round. The stakes, being only driven straight down, might easily be drawn up. I mention this, because, after the Gorkhalis have made. an attack, they usually entrench themselves in this manner.

## October 20th.-Thermometer $45^{\circ}$.

October 21st.-The fogs are said to hang over the Ramgange at this season, for about half this month: when they disperse, they are very dense and penetrating. One of the hill servants 1 hired as a cooly on the banks of the Nandkkni arrived with his load. He had been sick and obliged to stay at a village behind. The other man Tilane, now gone to Almera, said that we might rely upon his honesty and fidelity; and he has given a proof of it, as, if he had been dishonest, he might have gone off with his load unmolested : but though evincing some little courage in coming to persons in captivity, after learning the fate of his comrade, we find it is confined to this, for on sounding him as to taking a letter to Moradabad, he expressed his fears, and though apparently recovered, cited his illness as one cause for his not undertaking the journey.

October 29d.-Our servants were this day released from their logs and had more liberty allowed thean for moving about. Seventh day of imprisoment.

October83d.-In the evening the two jamAddars arrived with a letter from ВАм SАн. This acknowledged the
receipt of our letter, and a copy of an order from Nipal, stating that having heard that two persons had gone towards the $U$ 'ndes in disguise with guns, \&ce.; Bandhu Tha'pa' was ordered to stop them on their return, and know their business, and who they were, and also to detain them till ani answer should be received from Catmandu. The jamâdárs said that they were surprised we had gone privately when we might have commanded the country. We returmed the same answer as to Bandhu Tha'pa', that it was to avgid delay and inconvenience; but from all I have seen, I am thoroughly convinced, that; if we had applied for permission, it would not have beeni granted.

October 24th.-The jamddárs, who brought the letter from Bam Saf, came this morning to say that they had orders to procure whatever we might stand in need of. The jamadárs pretended to express astonishment at the severity of the usage we had met with, which they said was not agreeable to the orders the subadar had received; and stated that this had not been reported to Bam Sah.

October 95th.-A letter to Bam Sah was finished and sealed. Wedeternined to send Kangh Singh with it, that we might be sure of its reaching BAM $\mathbb{S}_{\mathbf{A H}}$, and that he might fully represent the treatment we had experienced. A half kind of consent was given to this by the jamadárs. A copy of our former dispatch to Sir E. Colebrooise, to which were added recent incidents, was given to the father of a boy, whom I had relieved by tapping for dropsy. He said, that he should go to his house immediatety, would place the letter in the sole of one of his shoes, and carrying these in his hand, would reach Chilkiah on the third day.

October 96 th .-This evening we took a walk out of the northern gate of the abbatis, and proonged it for 2 M 2
about anhour, in order to reconnoitre the adjacent country, for the purpose of attempting our escape should there appear a necessity for the measure. Our guards apparently did not miss us for the first half hour, when our absence gave them much alarm; and suspecting we had actually effected our escape, people weresent out in every direction to apprehend us. The attempt to escape from hence would be difficult, as in such case we must proceed completely through the wildest part of the country; and almost all the small watercourses, by which the mountains are separated, serve us the retreat of bears and other wild beasts.

October 97th.-When we reached this place, the sides of the mountain were beautifully green; but in this short space, by the night frosts, they have assumed the russet livery of autumin : 60 rapid is the change of seasoi in this country.

October 28th.-Early this morning a jamadár came into our tent; and seating himself, said the object of his journey was to convey us to Sirinagar; where Amr Singh wished us to be. This man brought no letter; and his interference was evidently the cause of some perplexity to our jamâdars. Amr Sinoh is the head of the army; and Bam Sar, the chief of these districts.

October 29th.-The watchfulness of our guards has not in the least diminished. A zemindar brought to the troops some Ghee for sale. Some one complained, that oil was mixed with it. The servant of the owner was laid hold of, and through fear of being punished, if he did not confess that his master had adulterated the Ghee, made an accusation to this effect. The supposed culprit was seized, stripped, bound, and flogged severely with thongs. The Ghee was confiscated for the use of the soldiers; and twenty-five rupees as a fine were ordered to be paid a
the fine to the subadar.-Should the poor wretch not be able to pay this in money, his cattle or children will be seized to the amount, and the value will be paid by the person who is to benefit by the property.

October 50th.-To-day more troops reached us from Sirinagar ; and we have with us in all about 190 men.

October 31st.-Another jamâdár now came with a few men, saying that he had the orders of Bandhu Tha'pa' to proceed with us to Sirinagar, from whence we were to go to Haridwar; and that on the road we were to be met by Ranjur Kajee, the son of Amr Singh. Although Bandhu Tha'pa' did not write, we thought it right to send him a short letter, stating that as we now were on the high road to Chilkia, it would be highly inconvenient for us to leave it. This jamaddar is about sixty, of a more frank character than any of his brethren we have met with, and is employed in going through the district to prevent the farmers ruming away. He said his efforts to give confidence to the farmers were ineffectual, and the orders of the Raja were disobeyed. An order had been issued under the great seal of the prince, in consequence of the great loss in the population of Garwhal, prohibiting the soldiers from taking any of the imhabitants as slaves: but this was wholly disregarded, and the soldiers always escaped the punishment with which they had been threatened. Living in free quarters, without receiving any check for their conduct, the soldiers had, the old man observed, so far oppressed the country, that where there were formerly twenty-five families, now only one was to be found.

November 1st.-The jamadars from Almora came at an early hour, to report that orders had arrived from Bam Sati $^{\text {to return all the things which had been taken from }}$ us; and after the lapse of about two hours, they returmed with the guns, \&c. We now found ourselves in the way to liberty, and resolved not again to part with our arms
except with our lives, ,This day our hill servants anrived. The old Pandit and his nephew were-in irons, but were furnished with victuals by Bam. Sah.

November 2d.-Hoar frost. Thermometer $36^{\circ}$; night $60^{\circ}$. We made preparations for marching at $9^{\mathrm{b}} 15^{\prime}$, left Mehelchowri, and ascended the Sobha pass. At the foot of the descent from the Sobha pass is the Khatsir valley, and half way down is a kioll of calcareous rock, the western side of which, about thirty feet high, and overhanging the base, forms a shallow cavem attribated toone of the Shrs. From chinks in the stone exudes a small quantity of black bitumen. The Khatsiur valley is about a mile broad: in the middle the edges are full of springs, the water of which is collected for irrigating the flats. This valley produces the Bansmatí rice, next in quantity to that of Chíkam, and would give vast crops of hemp of the finest quality. We pitched on a rice flat, on the right bank of the Ramganga, opposite to a small villaze called Jhalah. Kange Singh overtook us here with a letter from Bam $\mathbf{S a h}_{\text {ah, stating that his son was on the }}$ road to meet us; that our ill treatment did not proceed from him, and that the authors of it should be severely punished.

November 3d.-Thermometer $41^{\circ}$; night $69^{\circ}$. March at 10 ; we encamped under a Pipal tree a little below Mashi, on the left bank of the Ramganga. The top of Ghensalk ka Ling, covered with snow, was very visible in a Northern direction. Our supposed march to-day about seven miles. There was here an immense quantity of fish. The people place loose bundles of rice straw in the river, and keep them down with large stones. The fish, coming into them to deposit their spawn, are seized by the hand before they can get from within the straw. In front up the hills are three ovens for extracting tar; but the pines are small, and of course do not contain much turpentine.

Nooember 4th.-Thermometer $50^{\circ}$; night $62^{\circ}$. The son of Bıм SA'н was amounced just as we had finished dinner : when he came, preceded by an old man repeating his titles, \&c., and five or six bazar girls. His name is Lachifir $\mathrm{Sa}^{\prime}$ н, about twenty-six or twenty-eight years of age. He was dressed in fine Dacca muslin, and had about twenty shabby orderlies in attendance. He expressed the concern his father was under, at learning how we had been treated; and was anxious to have us believe, that the Sipahis had acted not only without his father's orders, but even without any orders at all. He appeared desirous, we should say we forgave what had happened, and the persons who had committed the outrage should be punished; we requested that the Pandits might be released, and stated that we were unwilling that servants should be punished, for having acted agreeably to their orders. Lachbír Sah said, that he would make a severe example of the soldiers, who had been most active in seizing us, if we would point them out. It was obviously his intention to have given up a few of these wretches to condign punishment, in order that we might have the odium and consequences of the act, and that his government might retaliate upon the Pandits. It was stated by us, that we should derive no pleasure or satisfaction from the immediate. agents being punished; but we should be glad to know the authors of our arrestation, who were principally to blame; and we farther said, that, as far as we were concerned, we should forgive the men, provided the Pandits. were immediately returned, so as to quit the country with us. He said he would write this proposition that evening to his father, and wished us to stay till a messenger should return from Almora with an answer. He said that Dasrath Bakshí had written to Nepál, that we had taken up between 4 and 500 men with muskets, \&c., had erected forts on the border between Bbthant and the $U^{\prime} n d e s$, and were endeavouring to raise the Marchas and Unias against the Gorkhális.

November 5th:-The jamadars last night requested, that the subadars might be furnished with a certificate of their good conduct toward us. We said that we had no objection to give a certificate of the good behaviour of the one, and that we pardoned the other, provided he would ask pardon of the old Pandit for the treatment he had experienced from him and his soldiers. Lachbir $\mathrm{S}_{\mathrm{AH}}$ came in the afternoon, and announced the receipt of a letter from the Rájá of Napal, ordering us to be seen safe our of the country with all our effects, and that we should be treated with civility. He observed we were at liberty to depart whenever we might think proper.


[^0]:    * For the same reason it is omitted in this abridgment. C.
    $\dagger$ The Pandit's measure of the road would probably have been more correct, had he been directed to step his usual and natural paces, the length of which might hate been ensily determined with precision by a small trial. C.

[^1]:    - Pinus Deodar and Longifolia.

[^2]:    - Probably a species of pine, as well as that which Mr. Moorczorr denominates cedar. C.

[^3]:    - Pines, see a former note.

[^4]:    - Pines.

[^5]:    - Perhaps Mica. C.
    $\dagger$ See a former note.

[^6]:    - See a former note.

[^7]:    - Panicum Miliaceum.

[^8]:    June 5th.-The situation of Nitt is in itself pretty 2 D

[^9]:    - The head man of a village is called Shdar, or Sehima, Sayend.

[^10]:    - On a subsequent day Mr. Moorcrort observes " June 12th.The temperature of the air varies much in the course of the day and night. At sun-rise, the thermometer is from $40^{\circ}$ to $50^{\circ}$; in the middle of the day, from $70^{\circ}$ to $80^{\circ}$. Ateight in the morning the sum overtops the hills which surround the little valley of Nitt, and blases with a fierceness of which we were the more sensible from the cold of the morning. About three the heat falls off most rapidly. I have never before experienced so sudden a transition from heat to cold, and contrariwise. At night I am only comfortably warm with almost all the bed clothes I can muster. At sun-rise a thick coarse woollen Hirdustani Chapkal or wrapping gown, over shirt, cotton waistcoat, and double cotton coat, is only just sufficient to keep out the cold. At nine the outer coat must be thrown off; at ten it is desirable to get quit of the other; and at noon the rest of the garments are, to say the least, incommodious from the heat. The reverse of this progress becomes necessary from half past three till night. The frequent changes of the temperature produce colds and fevers both amongst the inhabitants and strangers: but, though rather active in their symptoms, they are meither dangerous nor of long continuance. Ordinarily from the morning till about three o'clock, there is an upper and under current

[^11]:    - The Yak of Tattary, Bos grommiens.

[^12]:    - The silver coin of Srinagar and Letakh; which should weigh, as the name imports, throe mashds, the fourth part of a rupee: but the present currency bas been much debased.

[^13]:    *There are two mountains of this latter name : one near Gangotrí ; the other at Cailds.

[^14]:    - Seems to be Ovis Ammon. C.

[^15]:    We have passed three villages to-day, all painted, and of different colours. These are winter residences of the inhabitants of Dábá and .Dong.

    Just at the point when we began ascending, the valley narrows suddenly to a chanmel only just sufficient to give passage to the water. The hills, which are stated to be

[^16]:    - Probably a new kind; as all the known species of Arctomys have short ears or none. In other regpects seems to agree with the genus

[^17]:    - Anas Casarca.

[^18]:    * Probably Equus Caballus, which inhabits in the natural state, the deserts of great Tatary. C.
    $\dagger$ Equus Hemionus; which much resembles the mule. C.
    $\ddagger$ Otis Ammon? C.

[^19]:    - At full length Mdraza, divine made by Brarme, named Maras, the mind, emphatically. C.

[^20]:    * From the known resort of the grey goose (the swan of Hindu poets) to this lake, the bird is called in poctic language Manasaucas, or he, whose abode is the Manasa lake. Am. Cosh. b. 2. c. v. o. 23. C.

[^21]:    August 14th-Halt at Tirtapiri. Thermometer $98^{\circ}$.

[^22]:    August 21 st.-Thermometer $45^{\circ}$. Leave Dúmpú at $8^{\mathrm{h}} 50^{\prime}$. At 380 paces cross a small river, the water from which is made use of for irrigating some steps of land sown with Ava-jau. At 65.14 reach Table Land; a house of unburnt bricks about eighty yards to the left; to the $\mathbf{S}$. four or five others, which constitute the village of Gengoul, formerly tolerably populous, but now nearly deserted. It bears S .60 W . from our encampment at

[^23]:    - Cic̣er arietinum?

[^24]:    - Rhododendron puniceum, Ror.
    $\dagger$ Salix tetrasperma. Rox.

[^25]:    September 9th,-Thermometer $50^{\circ}$. Marched at 11.

[^26]:    A letter arrived from Bandho Tha'pa's son, now at Solur, directing Jagrup to treat us with attention, and to take care that no part of our property should receive any injury. He was anxious, that we should march to-morrow to Solur, which is five kos below Josht-math.

[^27]:    - Eleusine Coracana.
    + Panicum Colonum.

[^28]:    * Pine ?

