## III.

Latitudes of Places in Hindustan, and the Northern Mountains; with observations of Longitude in the Mountains, according to Immersions and Emersions of Jupiter's Satellites.

## By Captain J. A. HODGSON, 10th Regt. N. I.

bally Places.	Latitude	Province or District.	Remarks.
	0 1 1 1		
Ludiana	. 30 55 46	Sirhind.	Center of the British cantonment.
Sambdu	. 29 26 2	Jind	Village on the road from Narba to Jind
Sambdu	. 29 16 50	Ditto.	Camp, 3 furlongs N. W. of the fort
			Jind is the principal town and resi dence of the Sik'h chief Bag'n Sinn.
Caithal	29 48 51	Caithal	Camp, Sfurlong S. of the town, which i the principal town and residence of the Sik's chief BYLAL SIME. It was
Narnaund, (C)	29 18 0	Huriana, (Bril.)	one of the marches of TAYMUR, on hi route from Samana to Delhi. On the read from Jind to Hansi. Thi latitude is by construction.
Hansi	. 29 434	Ditto	Flag staff in the fort.
Ditto			Center of the cantonment.
Hissar, (C)			S. B. gate of the fort.
Bahauna	90 31 55	Ditto	Village.
Futiabad			House in the fort. Futiabad is mention-
			ed in Taimur's march.
Irwd, (C)	. 29 37 0	Ditto	At present a village, mentioned in TAI-
	3 757101	h	muk's route.
Danaur	29 31 29	Sersa	Gol. Adam's camp at the j'hil.
Dandán	. 29 41 30	Ditto	In the Battei country. Col. Adam's
_		1	camp at a j'hil.
Sersa	. 29 31, 4	Ditto	The ancient fort, taken from the Bat
•	1000		teis by Col. ADAM, but restored.

Places.	Latitude.	Province or District.	Remarks.
Ránish, (C)		Screa	The chief town and residence of the Battei chief Baha'dur Khan, taken by Col. Adam, but restored. This was one of Taimur's marches from Batnir.
Batnír	29 34 40	Bulnír,	West face of the fort, now in the possession of the BICANIR Rajá—Batnir is well known in history, from the extraordinary march made by Taimur, across part of the desert to attack it. It is on the east verge of the great sandy desert, which extends to the Indus, and is in longitude 74° 12 E. nearly. In Arrowsmith's map, Batnir is also called Batinda, which
•••			is a large town nearly 100 miles from it.
Tuskám	28 51 37	Huriana	Camp, 400 yards N. E. of the conical peak of rock.
Tigrána	28 51 36	Ditto	
B'hawání, (great)	28 46 12	Ditto	NANDA's tomb—B'kamání was stermed and carried by the troops under Co- lonel BALL. It is a large walled village, 3 miles in circumference.
Bírí	28 40 15	l .	S. side of Biri, a very large walled vit-
Silán	28 54 56	Ditto	S. W. side of the village, which is a large one.
Carár	28 49 27	Ditto	Large village, walled S. W. side.
Rhotac	28 53 15	Ditto	Center of the town.
Mahim	28 56 55	Ditto	Large mosque, west end of the town.
Mund ahal	29 0 0	Ditto	The fort—Mund ahal is a village be- tween Mahim and Hansi.
Carcara	28 54 20	Ditto	S. side of the village between Mahim and Rhotac.
Bissaien	98 49 43	Ditto	Small village near Biri.
Nigá na		Ditto	
Callowie	28 56 19		N. end of the j'hil, under the village.
Galauti	28 28 15	Doub,	Fort in Lieut. Col. Skinnen's jagir, on the Hindun river.
Tilhar	27 56 13	Rohilk hand	Mango tope at the S. E. end of the town, which is large.
Shahjehanpur		Ditto,	Camp, 1 mile east of the N. end of the city, which is very large, and equal or superior to Bureilly.
cantonment)	9999 58 -	Ditto	Cautonment of Col. GARDNER's cavalry,
cantonment)	20 20 20 2	Dull , , . , ,	2 miles N. of the old fort, at the west end of the city.
Murádúbád, (cantonment	)  28 50 20*3	Ditto	200 yards in the rear of the center of the cantonment.

Places.	Latitude.	Province or District.	Remarks.
Cldad	0007'97.	Dabilbit and	IAL M. D. J. D. J. D.
Chandausi	28 27 37 3	TORKE Rana	At Mr. Boldero's Bungalow, from
	111	1	whence the N. E. gate of the town of Chandausi is distant 1 mile
•	111		furlongs, and bears 44° S. W.
Rámnagar	99 99 99	Ditto	North wall of the ancient and extensive
remaring as	20 22 20	2.00	Pan by's fort—The conical mound
			(in height 70 feet), distant 411 yard
• •	111	<.00	S. 20 E. The circuit of this old for
	1 1 1		now in ruins, is exactly 4 miles, and
•	111	·	had 34 brick bastions.
Cái ipur, (the factory).	29 11 55	Ditto	The government's factory in the old for
the fam , (and and say)	1		which was extensive, and resemblin
	111		that at Rámnagar. At the N. W
	1.11	********	end of the town, and distant from th
•			1 m. 7 f. is another fort; of which
			Mr. BURROW observed the latitude
Haldoa	29 15 59	Ditto	One furlong west of the town.
Banhera		Ditto	11 furlongs east of the village.
Nagina	29 26 49	Ditto	2 furlongs S. E. of the town, on th
	1	i in	Murádábád road.
Dhampur	29 17 13	Ditto	5 furlongs S. E. of the town, on the
•	121-15		Muradábád road.
Sheokara	29 13 19	Ditto	1 farlong S. of S. W. end of the town
Burkis		Oude	4 furlougs N. E. of the village, on the
		10.737	road to Sttapur.
Makauli	27 40 8	Ditto	Camp, 1 mile east 20° S. of the village
		(5)100	on the Sitapur road.
Sitiour, (cantonment).	27 33 36	Ditto	Bungalow on the left bank of the null
		57130	2d line from the rear:
Pirnagar	27 25 28	Ditto	S. W. end of the bridge, road from Site
	1 1 1		pur to Lucnow.
Barrek	- 27 16 9	3 Ditto	A dergah at the N. end of the town.
Mohan	. 27 5 26	7 Ditto	I furlong N. W. of the town.
Lucnow, (cantonment).	. 26 54 50	5 Ditto	Center of the rear of the Sipahir lines
2	111		the right battalion.
Lucnow, (city)	. 26 51 50	1 Dillo	Capt. MacLEOD's house, near the res
•	0.000	20.00	dency.
Solar gunj	26 52 23	Ditto	N. gate of the guny, on the road from
	14400		Lucnow to Bairam ghát
Bairam ghát, (cant.).	. 27 726	5 Ditto	Captain RAPER'S Bungalow.
	declarate.		The state of the s
Muhammedpur	. 27 13 12	Dilto	S. E. corner of the town, on the rou
	1		from Bairam ghát to Sitápur.
Bisma	. 27 23 16	Ditto	Tank at the S. E. end of the town,
Nowil gunj	. 27 47 40	Ditto	The Serái in the town. This is the
<b>m</b>	lantes	.lna.	road from Lucnow to Fuliger h.
Bangermow	26 52 53	5 Dillo	The west end of the town, distant & for
	The second second	10.00	longs N. 40 E.
Nanamew	26 52 21	5 Doab	The ferry, right bank of the Ganges, at
	3030	5000	200 yards above the old mound of
77.	1	la	fort.
Khoda gunj	27 11 31	Ditto	The Serái in the villages.

Places.	1	al	itua	le.	Province or District.	Remarks
	1.	1.	1.	_	-	
Futiger'h, (cantonment)	1		1		* **	
Furkhabad	27	2:	3 56	3	Doab	Outside the Delhi gate, and 3 furlongs N. W. of it.
Ghuria	27	28	33	:	Ditto	Village, right bank of the Ganges, in the Cadir.
Beitah	27	34	10	)	Ditto	Village in the Cadir of the Ganges.
Ahmed gunj	27	34	57		Ditto	Gunj in the Cadir.
Bawalpur	127	41	110	)	Ditto	Village in the Cadir.
Kidderpur	27	48	0		Ditto	Ditto ditto,
Suhawuhur	27	47	40		Ditto	furlongs.
Lohia	27	34	27		Ditto	The old ger hi.
I ta	27	24	15	Ç .	Ditto	Tope, 2 furlongs S. E. of the town.
Nindauti	27	34	4		Ditto	The large gunj.
Sukeit	27	26	41		Ditto	N. W. angle of fort.
Awa	27	27	45		Ditto	Tope, 4 furlongs west of Hina Senu's' formidable fort.
Jelésar	27	29	14	5	Ditto	At the fiel gah, 3 furlongs N. W. of
	2	-			D.u.	the HAPRA's gate of the town.
Saidabad	27	20	51		Ditto	t furlong N. W. of the fort.
Rai	2/	33	24	- 1	Ditto	Large village, 6 miles from Muttra.
Barauli	00	10	90		Ditto	Large village.  N. side of the place.
Shienepur	00	4.0	Cers			
Abdulpur	20	42	40	1	Dato	Village on the road from Meeral to Pa-
Daulheri	28	56	t5	1	Ditto	reithut ghur. Village on the road from Meeret to Baghput.
Baroad	20	5	33		Ditto	Small walled town in Bégum Sunzoo's jágir.
Sirdanna	on	0	16	- 1	Ditto	Bégun Sumaoo's house.
Burkanna	20	10	10	-	Ditto	4 furlongs N. 10° west of the town, Bi-
	-	10	100	1	Date	gum's jágír.
Kinauni 11 P. P. P. And P. P.	29	27	21	.5	Ditto	2 furlongs N. E. of the village, Bégum's jágír.
Muzaffernagar	20	28	40	. 1	Doah, district Scharanour	2 furlongs N. E. end of the town.
Nasírpur	29	44	14	.7	Difto	Village on the road from Munafformer
		97	-			to Hurdman.
Jaurasi	29	49	2	1	Dillo	Ditto.
Doobhand						West side of the town, the large old brick fort distant 4 furlongs N. 60 E.
Rámpur	20	48	9	.7	Ditto	Camp—The mosque in the town, 4 fur-
	1			Į		longs S. W. on the road from Seks-
				•		ranpur to Delhi.
Sarum	29	15	39	5	Dillo	At a dergáh, 1½ furlongs S. E. of the village, Bégum's district.
Rámpur	29	16	4	4.	Dillo	i furlong S. E. of the village, Bégum's
		J		1	į	district.
Shur Mukhteser ghat	28	49	<b>3</b> .3.	7	Doab, district Meerat	The ferry on the right bank of the
Samaruddin nagar	اوه	56	<b>6,5</b>	1	Ditto	Ganges. West side of the sillers in the Cadinal
inner manne magain	20			1		West side of the village in the Gadiral the Gunges.

Places.		atitud	Province & District.	Remarks.
	l.°	' "	<u> </u>	
Jaisinhpur Barámohána	29	7 20	1 —	Small old town N. W. side.
Daurala	29	7 30	Ditto	haranpur—1 furlong S. of it. Windy,
Meeral, (cantonment)	:	- (	Į.	house.
Hastinápur	29	9 56	Ditto	Scite of part of the ancient city, mentioned in history, as having been once the capital of <i>Hindustan</i> . It stood on the right high bank of the Ganges,
				and has probably been swept away by
Dháránagar, (ferry)				opposite Dháránagar.—The mosque there bears 76° 40° N. E.
Katauli, (town)		1 .		furlongs N. E.
Jansét, (town)				N. E. gate of the town.—This was once the seat of the famous Saiyads of Bara.
Dárhtwala, (rillage) Suchatál	29	28 54	·1 Ditto, Seharanpur	
Bihárí, (village)	29	23 49	Ditto	Village between Jdriset and Muzeffer's nagar.
Nagal, (village)	29	19 25	Ditto	The Action of the Control of the Con
Sik hpura, (small old town) Scharanpur, (cantonment)	<b>2</b> 9	54 45 59 1	Ditto	Ditto ditto.
Mangtur, (town)	29	47 33	Ditto	The old brick fort, distant 5 furlongs S.
Toghalpur, (village)	29	36 13	Ditto	
Firozpur			Ditto	Small fort and village above Suchatál.  At this place, it is supposed, TAIMUR, crossed the Ganges.
Badshapur, (village)	29	40 22	Ditto	Village and small fort in the Cadir of the Ganges.
Lálpur	29 29	43 5 <b>3</b> 45 25	'3 Ditto	Village in the Cadir.
Jwálapur, (town)	29	54 52	Ditto	4 furlongs east of the town.
B'hojpur	29	46 52	Ditto	Village and fort, right bank of the
Goverd'hanpur	29	11 49	Ditto	Large village and small fort in the Ca- dir of the Ganges.

Places.	Latitude.	Province & District.	Remarks.
	01.1.		
Raiwala, (village)	30 0 44	Dún valley, within the first range of hills. The Dún, since the conquest is attached to Scharanpur.	. <u> </u>
Lak'ha gháť, (ferry)	30 342	Dún	Right bank of the Ganges. This is the
Déhra	30 19 11	Ditto	highest ferry on the river. Gate of the temple.
Keliepur	30 532	-	Small village on the road from Scharan- pur to Déhra.
Keri	30 3 9	Ditto	Large village between Scharanpur and
Jeberhera	29 48 7	Ditto	Déhra. A well at E. end of the village.  2 furlongs N. of the town wall. Bad
Rajapur	30 0 1	1	observation. Village between Daulutpur and Bhit.
		Ditto	Mosque at the village on the left bank of the Jumna, 6 furlongs S. of the ruins of the Emperor Shah Jehan's hunting palace or Padsha-mahal, at the foot of the south range of hills, where the Jumna issues from them, as the Ganges opposite does at Hurdwar.
Bur his ghát Raipur	30 6 9 30 13 44	Ditto	The ferry, left bank of the Jumna.  Large village on the old canal from the Padsha-mahal, to Laung opposite Delhi-3 furlongs N. of the village. Bad obervation.
Padsha-bagh	30 20 8	Ditto	Halting place, and well at the S. W. mouth of the <i>Timli</i> pass through the hills into the <i>Dún</i> .
Timli	30 22 36	Dún valley	Large village in the Sál forest, 1½ furlongs N. of it.
Hoorouwala	1111	Ditto	Large village in the forest, N. side of the valley, on the alope of the B'handráj mountain.
B'hadráj, (camp by the dell, higher on the slope of)		Ditto	Forest.
Sainspur			Village on the Asun river.
Ráj ghát			Ferry on the left bank of the Jumna. Indifferent observation.
<b>*</b>	30 31 35	Sirmur	Village in the Kirda Dún or valley. On the Macaranda or Márcan da river, at the foot of the Nahan mountain.
	30 14 50		Town in the Sik'h country, on the road from Bur hia to Nuhan, belonging to Jod'h Sinn, Kulsia.
Scidpura Cun a a ghát		Doab—Seharanpur Ditto	Large village in the Cadir of the Jumna. Ferry, left bank of the Jumna, near the village of Béghi.

Places.	Latitude.	Province & District.	Remarks.
Busera	2929 51 2923 21	Doab — Scharanpur Doab — Meerat	At a building, in a tope of celebrated mango trees, the fruit of which is esteemed to be the best in Hindustan, and was appropriated to the use of the emperor. Kairana is an old
Chaprauli,	29 12 56 27 49 36	Ditto Doab—Coet	Large village S. W. side of it. Col. GARDNER's house, 2 miles from Ahas-gunj.
Sicrole	25 24 17 25 <b>3</b> 8 28	Benares Behar—Patna	Mr. BIRD's (the judge's) house near the bridge, at the station of Sicrole. Col. GARDNER's house at Digga, near
Diggs	23 28 31		Dinapur. 4 furlongs S. of the village, which is on
Aghadip, (H)	23 37 12 -	3 H. Ditto	sistant in the survey.  Left bank of the river, a mat h at S. end of the village, bearing E. 250 yards.
Bicki Hát	23 37 7 · 23 36 28 38	H. DittoB.	Large village on the river, right bank.
Sati  Rangamati  Berhampur	23 36 33 23 58 13 24 1 19 24 5 39	B. Ditto  Ditto  Ditto	
Gadhai	24 22 14 · 16 ·		cloudy. Right bank—Village, where the small Nulla joins the river.
Place where the naviga- tion of the B'hágírath? opened from the main ri-	24 38 28 · 25 ·		4 furlongs N. of the sandy point, round which, boats now turn from the B'há-gírathí into the great Ganges.
ver, in November 1814.) Sivajpur	. 24 50 51 48 ·		Remains of a village on the left bank of the river, near the ruins of Gaur. The Cadam Resúl there 68 N. E. dis-
	24 50 49	7	tant about 3½ miles.

Places.	Latitude.	Province & District.	Remarks.
Madhupur	25 7 55	Bengal, on the river Ganges.	Village on the right bank. Ráj-mahal point E. 56 S. Windy, bad observation.
Right bank of the river, near Motijerna cascade)	25 12 51	Ditto	The note of the bearing of the cascade is mislaid, but must be nearly west.
Gangápersád	25 15 31 ·2 27 ·3	H. Dilto B.	Bardmeter 29, 94—Ther. 74. Under the village, and high right bank of the river. The high hill over <i>Teria</i>
Sicrí gali, (B.)	25 14 56·5 15 1·3	Ditto	gali bearing west 0° 40° north.  SAINAD AHMED's tomb on the top of the hill, right bank.
Near Colgong	14 58 9 25 16 33 38	H. DittoB.	Right bank. The indigo planter's white house, distant 200 yards E. Large house on the hill 217°, Tree on the
Bhagalpur or Boglipur (Mean)	9.1	H. DittoB.	lower rock 232°. (S. 52 E.) The temple of MAHADEVA on the right bank of the arms of the Ganges, which flows under Boglipur, and nearly in the center of the town.
2.5	23 1 5	H. Behar, on the Ganges	Town, right bank of the Ganges. The Byar creek, which leaves the Gan a cariver at Karnaul, in Tirhut, joins the
Moar	25 25 41	Ditto	Ganges, across the river, due east. Village, right bank. Indifferent observa- tion.
Felwa	25 30 34 ·8 ] - 24 ·5 ]		Town on the right bank. The mouth of the Pampon river 3½ furlongs W. 10. N. The mat h 150 yards E. 20 S.
Dinapur, (cantonment)	25 38 12	Ditto	Flag staff 14 furlongs, bears S. 40 E.
Seerpur, (ferry)	25 40 8	Ditto	Bar. 30, 03.—Ther. 68. The ferry, where Major General Mar- LEY's division crossed. Flag staff at Dinapur. 116°. Secretar 187. Here, we leave the Ganges, and proceed
Camp, above the left bank,	19 1	I. Ditto	with the army to the Népál frontier. ilead quarters, 29th November.
	25 48 6 ·6 1	Ì	furlongs N. W. of the village, on the Mai Nulla, a creek from the Gan-daca.
	25 59 28 ·9 1 38 ·1 33 ·6	Ditto	Large village.—Camp—The village dis- tant 1 disclongs, and S. 30 east.
Camp, left bank of the Gan'd ac		to Tirhut -	I furlongs above Futipur ferry. Breadth of the Gan d ac here, 530 yards.

Places.	Latitude.				Pronince & District	Remarks.
	0	<u>'</u>	"	1_		1
Comp next Goors	26	8	47 -4		har Tirkut	Camp, 5 furlengs N. E. of the village on the Byar creek.
Ölsyripur	26	1.5	44 ·8	H.	Ditto	Camp, 9 fusiongs N. 14 west of the village.
Bridge of boats over the Bur ha Gan d'ac river \$	26		21 -9	н.	Ditto	distant? furlongs N. 83° E. on the left bank of the little or old Gandac, which is called higher up the Sikram
Camp near Mejauli	26	30	13	н. В.	Ditto	river. At the bridge, the river was 93 yards wide, and 6 to 9 feet deep.  Camp, enithe left bank of the Bukia river near the willage. Not good observations, on account of the camp smoke
Dacca	26	40	51 23	н.	Ditto	Gamp, 2 furlongs N. 15 east of the vil- lage. These 2 sights differ 25" which is more than usual; but in a large camp, observations are liable to be hur- by the amoke, and the trampling st
Gorasén	26		37 ·7 26 ·2		Ditto	men and eattle. Camp, left bank of the Bukia, exposite side to Gorasén. Tolerable observation, but much smoke.
Camp near Jitpur	_	_	13 .5	В.		Camp between the Jumni river, and Tir-sulla. Village of Jitpur, distant 6 furlongs, W. 56 N.
Lowien, (camp)			11 ·1 6 ·4 4 ·7	н.	Ditte	The Bulwin nulla is on the right flant of the camp, and the fort Barch ger hi is distant 2" 1' E. 8° S. Thi hatitude is the mean of various obser
Alown, (camp)			E	н.	Dillo	vations of the sun and stars. Camp, om the left bank of the Benks river Rains of the small fort of Alom (across the Berha) 3 furlongs, and
Amerpati, (camp)			41 .5		Dillo	Seest 50 S. At this camp, Captain Seesaw, and the artillery man killer at Persa, were buried.  Camp, on the left bank of the Gaad river
Mohan, (camp)	27	5	41·6 41·51 40	1	Ditto	near the hamlet of Amerpati.  Left bank of the Gaad river. Th
Belles, (camp)	27 26		36 · 5 37 29	H. B.	Ditto	small village of Mohan 310°  The small village of Belhai, distant 5 fur. longs, bearing 247°.

Places.	L	ati	itude.		Province & District.	Remarks.
	10	1	1 "	1		
Baura, (camp)	27	9	19 -	8 H.	. Behar-Chemparan (In the Terái)	At the large tank or pokra, on the right of the line. This was the Népás boundary.
Bettiah	27		14 · 56 · 47 · .	H.	Ditto	Tent near the south gate of the town, distant 340 yards N. 65 E. the Rájá's
	26	47	52 -		•	house 66°. 20°. The town wall 348° to 78°. Mean of crossed observations of the Sun's Rigel and Sirius.
Berherwa, (camp)	27	3	8 -		Ditto	Camp of the division near the small vil- lage of Berherwa in the Terái.
Banjari pokra, (camp)	27		15 -		& B	Camp of the division, the left flank on
Korberwa	98		5 1		Ditto	the large tank, and the right on a deep small nulla; a strong position. Tank near the village, 10 miles from
A oroerwa	1	1		1	Date	Banjari pokra, on the Sigauli road.
Sinhásani			51	1	Ditto	Tent at the Berga tree, on the south side of the village.
Sigauli			31 -8		Ditto	2 furlongs east of the village.  Tent at the east gate of the town. The  Rájá's house bearing 284°. Mean of several sets of observations.
Adhapur pokra	26	56	16 3	Н.		The great tank, where 2 companies had been cantoned.
Cachirwa			9 .6		Ditto	East side of the village, which is on the
		53	3.9	В.	=	Bukia river.
Jounkunwa		48	54 ·3 22 ·2 18 ·7	H.	Ditto	Large village, 10 <sup>m</sup> 2 <sup>f</sup> from Cachirma, and 2 <sup>m</sup> . 5 <sup>f</sup> . from Berherwa, where
Joapur	26	47	20 ·4 19 ·9 18 ·7	H.	Ditto	the Gorc'ha post under Parasuram Tuxra was surprised. Mango tope, west of the village.
	_	-	19.31			
Matiári	26	39	10 .4	Н. В.	Ditto	Tent at the great Pákher tree, at the edge of the mun or deep j'hil, west
Semurie	26	41	43 ·7 40 ·3	Н. В.	Ditto	side of the village, in the tope.
Ticauli <b>s</b>	26		24·5 23	Н. В.	Ditto	Mango tope, east end of the village.

Places.	Latitude.	Province & District.	Remarks.
Ramnagar	27 10 0 ·6 9 57 9 58 ·8	B. (In the Terái)	Mango tope, 5 furlongs N. W. of the town of Ramnagar, which is a considerable place, and inhabited by the exiled hill Rájá of Tancu, and his followers.
Boggah	27 5 16	Dillo	Great tree at S. W. side of the town, which is on the left bank of the Gun-
Sewméser, (mountain)	27 22 27	Ditto	Small fort on the summit of the mountain, which is 2270 feet above the Terái, which it divides from the Chitaun valley, through which the Rapti river flows to the Gandac. If a fort were built by us here, it would at all times ensure a passage from the Terái into the above valley.
Tirkelwa	27 0 6	Dilto	Village, tent by the side of the Herher
Gobindgunj	26 28 58	Ditto	Large mart and ferry, on the left bank of the Gandac river. At this period, Captain Barron having left me to join his regiment, the following ob- servations were taken by me alone.
Pippera	26 33 1	Bettiah	Mr. Greeg's indigo factory.
Ancient Hindu tumulus or mound near Kisseria	26 19 28	Ditto	N. E. end of the village.  3 furlongs from the mound, and S. 39.  west of it.
Karnaul	26 16 33	Tirhut	5 furlongs east of the town, which is on the Gan dac.
Motipur		Ditto	Mr. Wood's indigo factory.
Bistaukia		Ditto	Large tree near the village.
Serrya		Ditto	Indigo factory on the Byar creek. Village, first stage from Hájipur to- wards Muzafferpur.
(On the Ganger from Di napur to Caunpore.)			
Mouth of the Gogra or Dewah river	25 47 19	5 Ditto	Confluence of the great river Gograwith the Ganges at Semuria. The great Berghet tree bears 312°, distant 1°. 1′. Course of the Gogra up 298°,
Noka and Udown Chepr	a 25 40 42	Ditto	of the Ganges 216°. Great tree at Noka and Udown Chepra; 2 villages on the left bank. The Gange, up 219°, down 85 for 6 furlongs, then
Ekauna	. 25 39 37	Ditto	100°. Channel deep.—Bank high.— Right bank near Ekauna, river up 329°
Anjaurpur	25 41 34	Ditto	for 1 mile, down 140°.  Village of Anjaurpur 296° 3 furlongs on branch of the Ganges. Course up 210°.

Places.	Latitude.	Province & District.	Remarks.
	01.1.		
Buxar, (flag staff in the)	25 34 35	Tirhut	Right bank of Ganges.
Ghazipur	25 33 50	Ditto	250 yards below the Chiheleitim pe
Left bank of the Ganges .	25 30 40	Ditto	S. east end of Ghazipus cantonmen 41°. The Chikelitiks 48°, distant about 6 miles.
Zemeria	25 24 47	Ditto	Indigo works on the right bank. Rive
Left high bank	25 29 45	Ditto	Sahibpur, N. right bank opposite 230 7 furlongs, Nidra 274°, Phulmari 200°.
Right bank below Benare		Ditto	Sands—Surar village 283°. 3 m. river course up 282°, down 100°.
Benares		Ditto	Sand on the right bank, opposite the city. Center of the dome of the great mosque 13°. 14 Stocia templ 230°. 19 — River front bastion of Ramnagur 161°. 38.
Chunar	13 10 20 8	Ditto	At the ferry N. of the fort. The fla staff 18°. S. W. corner bastion 83.
Chepur		Ditto	High right bank of the river, under the village of Chepur. The large village of Betauli distant 1. 1. L. and bear 116 lower down the river. Man troublesome sands in the river here.
Mirzapur	25 9 43	River Ganges	Dr. TURNBULL's house and factory, of the high right bank of the river.
Bijraul	25 16 5	Ditto	Under the Sivála and village, righ bank of the river. At this place is ledge of konker rocks, and a ver strong current, dangerous to boats.
Chandni	25 20 55	Ditto	High right bank, at the small village of Chandri. Highest building in the fort of Allahabad 331°. 10.
Seráí	25 30 31 -4	Oude	Left bank. Scráf village 9°. 6 furiong.  Bungalow on high point at Ougenic right bank 263°, niver up 285°. down 130°.
Subadar ka perwa	25 31 37	Ditto	Left bank. Sinhori 122°—Stone ghd at Jehanabad 259, Busiri 210. Rive up 255°.
Palhanna	25 34 24	Doab	Palhanna, large village with a Sioal meth, right bank.
Manicpur	26 46 16 26 3 58	Oude Ditto	Reft bank, below the high old fort. Sand on the right bank, upper stone ghá in the town across 351°, center ghá 9°, lower '81°. Transit of Mercur The preceding limb of the planet go ing eff, touched the sun's exterior limit at mean time 22° 15° 44°. 40°. 5 11° November, 1815.

Places.	Latitude.	Province & District.	Remarks.
	0 11 11		
Bilaura	25 53 3	Doab	Right bank. Ghát at N. E. corner of a large tope, 5 furlongs below the town of Bilaura.
Buxar	26 8 8	Ganges — Oude	The ghát at Buxar, a large village, left bank. Surajpur, lowest white building in the town, 294°, about 4½
Campone, (cantonment)	1717	Dead	miles. Major Macherson's bungalow, formerly the brigade office, near the artillery depot.
(Here, leave the Ganges and proceed up the Do- ab to Schuranpur.)	-1 1	·	
Chaubépur	26 36 59	Doab	S. side of the village.
Pourwa	26 44 26	Ditto	2 furlongs N. W. of the village.
Meeran-cí-Serái	27 1 58	Ditto	Small tope, 1½ furlongs N. W. of the
Jelalabad	27 6 9	Ditto	Indigo vats, 1 furlong W. 20 N. of the village.
Khoda gunj	27 11 23	Ditte	1½ furlongs N. W. of the Serái, on the Futiger'h road.
Fuliger h, (cantonment)	1.00 (1.00)	Ditto	Large red bungalow (2d range from the river); formerly Mr. Bush's shop.
Arjunpur	27 41 7	Ditto	East side of the village.
Khas gunj		Ditto	lidgah, 1½ furlongs from the west gat of the town.
Jerrari	A Land Land	Ditto	$1\frac{1}{2}$ furlongs west of the village.
	or return	Dítto	Near the tombs of the officers killed at Aliger'h, and one mile N. of the Delhi gate of Coel city. Aliger'h fort distant 2 <sup>m</sup> . 3 <sup>cur</sup> .
Soomna	28 3 16	Doab-Coel	Indigo vats, 3 furlongs from the village on Aliger h side.
Koorja	The Paris of the P	Ditto	1 furlong N. of N. E. end of Koorja, which is a large old Saiyad town.
Gullouti	28 35 37	Doab—Scharanpur S.	N. gate of the village.
Hauper	28 43 28	Ditto	Captain Hunter's house, at N. gate of the town.
Robanna Deobhund	29 35 40 29 42 17	Ditto—N. division	Pond, N. E. end of the village. Old mosque and pond, 4 furlongs N 30° west of the N. side of the town
Civil station, near Schwon pur	29 57 9	Duto	on Seharaspur road.  House of Mr. Grindan, the magistrate by 61 observations of the sun and stars.

Places.				Province & District.	Remarks.
(The following are within the mountains, conquer- ed from the Gorc' has.)	1				
Ambari	30	28	57	Dún valley	Bank of the Jumna, east side of the vil-
Cá lsi	30	31	24	Jaunsar	Small town, within the mountains, and between the Tonse and Jumnarivers
Runtum	30	31	59	Ditto	Small deserted fort on the mountain.
Bairat	30	34	31 -7	Ditto	Fort, on the high peak of the mountain.
Nahan, (the capital of Sirmor)	30	33	21	Sirmor	Captain Wilson's house.
Jaitac, (fort)	30	35	3	Ditto	100 yards N. W. of the fort.
(The following are Lati- tudes of places in the mountains of Sirmor, Ju- bal, Keounthul, Comar- sén, Biseher and Ca- naur, between the rivers Tonse and Sellej.)				- 7-25-a	
Shúngrá		41	36	Ditto	Walnut trees—Shungra is the chief village of the district, ou N. face of the mountain, which bounds the Giri gangá to the N.
Underi	30	42	37	Ditto	Large village, side of mountain, Chaur
Bowai	30	45	7	Ditto	peak 7° 10. Large village, at the foot of one of the S.
Culag	30	47	8,	Ditto	E. spurs of the Chaur mountain. Village and small fort, foot of a S. eastern spur of the Chaur.
Cherauli	30 30	49 51	17	Júbal Ditto	Village, between spurs of the Chaur. Small village, N. eastern spurs of the
Ling jhar	30 30	53 49	53 50	Ditto Sirmor	Chaur.  N. N. E. spur of the Chaur.  Village on S. W. spur of the Chaur, on the Mushiur rivulet, which joins the
Thor	30	16	12	Dato	Small village on the Giri gangá, at N.
Dinga Cinga	30	12	7	Düto	foot of the Sén-ci-Dhar mountain. Village on the ridge of the Sén-ci-Dhar
Burj-cí-Téba	30	12	12	Ditto ,	Halting place, near stockade on the Bucj mountain, which is a continuation of the Jaitac range road, Nahas to Sabatts.

Places.	1_		tude.	Province & District.	Remarks.			
	Ļ	<u>'</u>	"	f				
Tilri-ci-Daber	. 30	48	21	Bughat	Halting place, at N. W. foot of the Burj-ci-Tiba.			
Mia-cá-gaen	. 30	54	32	Ditto	Village between the mountains.			
Saballu	1	1	94	Keounthul	British cantonment of the 1st Nuscrit			
Haripur	31	G	53	Ditto	Village on the Gambhir river, road Sabattu to Cot ghur.			
Serie	31	4	54	Ditto	Deserted village, on slope of the mountain.			
Bunnd Chokey	į.	ı		Ditto	Halting place, near Phaghun, on ridge of the mountain—Chaur peak 146° 20			
Theog	. 31	đ	46	Ditto	On ridge of the mountain, the small fort distant 300 y. 237 f. — Chain high peak 159° 05. Nagni fort 118° The Giri gangá about 5000 feet be lów.			
Matiana	31	11	34	Comarsén	Village between mountains — Chaus high-peak 168° 50. Nagni 186° 31.			
<b>K</b> andro <b>at</b>	91	14	25	Ditto	Village in deep dell, west of the fort or Wartoo mountain. Wartoo fort 82°9			
Git great	31	19	99	Ditto	British cantonment of the 2d Nuseric battalion of Gorc'has, on slope of the mountain, about 5000 feet above the left bank of the Setlej.			
Mrt	31	21	46	Bischor or or accessor	Viltage on the test shore of the rive Setlej, which is confined in a narrow bed by steep mountains of rock of great height.			
Rámpile	31	26	22 7	Ditto	Rampur is the capital of Bischer, and the winter residence of the Raja It has much fallen to decay, and a present has only about 150 mean houses, and some better, belonging to the Raja: It stands on the left bank of the Setlej, which is 210 feet wide, in June very rapid; it is crossed by a rope stretched across to the opposite or Culau side. The river is confined by exceedingly steep and lofty mountains of rock. The heat at Rampur, is excessive.			
Dhar	31	28	53	Ditto	Village, left bank of Setlej, and about 4000 feet above it.			
Muzo <b>alia</b>	81	<b>2</b> 8	40	Ditto	Village on rivulet, and in glen of some name, reaching from the Setlej to the snowy peaks.			

Places.	Latitude.	Province & District.	Remarks.
	01.1.		
Seraén	31 30 19	Bischer	Walnut tree, near the Rájá's house. Seraen is about 4500 feet above the Setlej, and is the summer residence of the Rájá;—a pleasant situation on the mountain side;—it is only a village. The Rájá's house is high, and built in the Chinese form, as usual in these mountains.
Tranda	31 33 42	Canaur	Village, high above the Setlej. Canaur is that remote and rugged province of Bischer, which is within the
Kungoas	31 32 51	Ditto	Himalaya, and on the Setlej river.  Left bank of Setlej, and high above it; the river is confined by mural precipices.
Nichar	31 33 15	Ditto	Do. Do.
Boara	31 32 46	Ditto	Village, in high glen of the Saldang river, which falls from the N. side of the snowy peaks to the Setlej. This village, and the others of Canaur, are in snow the greater part of the year. Here I turned to S. E. and began the great ascent of the N. face of the S. ridge of the Himálaya.
Pass over the Snor Range  Teuthis  Hurneoul	31 29 25 31 15 19 31 11 35 31 57 29	Ditto  Ditto  Ditto	24th June, 1816. In the snow, and between the cliffs of the Hima laya, at the immediate foot of the Panners pass over the snowy range from Canair into Sivarra, and on N. side of the pass. This place is coafined by cliffs, which rise perpendicularly above it, to the height of 3736 feet. Water boiled at 190° of Fahrenheit. I crossed the ridge on the 25th June, at 11 a. m. in a heavy shower of snow. Village on the Indravati river, which falls into the Paber.  Large village on the Paber river, which joins the Tonse near Raghai.  Large village in the Nora district.
Wartoo, (fort)	1 1 1	Comarsén	Wartu or Hurtu mountain, 7 <sup>m</sup> . 3'. S. E. of Cotghur. Height of the mountain above the sea, about 10,060 feet. During a residence of 7 days on this peak, in July, I could only get one observation for the latitude, and that a bad one, the mountain being enveloped in dense clouds.

Places. S	ł	itude.	Province & District.	Remarks.
	11	(1)		
On or near the river Jum- na, within the mountains of Jaunsary Sirmor; and				
Rewsen.)		1	,	
Bairat, (fett)	30 34	31 -7	Jaunsar	tain, 3 m. west of the Jumna.
Murlang			Ditto	. Village, in the glen on the Silgad river which joins the Jumna, 5 miles east.
Lakhu-man d'al	30 43	24 :	Sirmor	Right bank of the Jumna. Lakha-man d'al is said to have been a place
	531		:	famed in Hindu story, as one of the
	Shi"	1		favorite haunts of the Pandus. Ther were a great number of temples and
	mak v			idols here, but they appear, in
	U.M.			great measure, to have been buried
	1 1			by a slip of the side of a mountain
Paunti	30 48		Rewaen	which overhangs their scite.  Village, on right bank of Jumna, and
E WARES.	- 40	٠°.	1	400 feet above it. Rewaen is the up
A Company of the Company	Display			per division of Gerhwal, and chiefly
				subject to the Gerhwal Rájá.
Gira	30 52	8	Ditto	Village, on the side of the mountain, in the Banaul glen, 5 <sup>m</sup> . 7 <sup>r</sup> . from the righ
	100			bank of the Jumna.
Thanno	30149	12	Ditte	Small village, right bank of the Jumna; and
7 4 7 7 A 7 A 7 A				400 feet above it. Cross the river on
		·	•	low Sungka Breadth of the river, 40
Calnaier			Diu	feet, but deep, and falling in cataracts Small value, left bank of the Jumna.
Cainaur Wastr)	30 51	35	Dille	Phys. Prince Co. Prince Co.
Of hir ghur or Waste	30 54	47	Ditto	Right bank of the river, small hamlet
			•.	confined by mural precipices of great
1 1	l		1	height. A small fort here. Most o
- 7431.				the villages in this neighbourhood were
		:	,	buried by the fall of the cliffs above
		-	D.u.	in the earthquake of 1803. Bad and uncertain observation. Wea
Banasta	30 56	50	Ditto	ther thick. Small village, at the con-
			· }	fluence of the Banassa river with
• • • •	'	. 1		the Jumna. There are 10 house
Art I are the second				here; the rest were buried, last year
			•	by a slip of the precipices. Appt alt. of Jamnautri east snowy peak
			· · · · · · · · · · · · · · · · · · ·	as seen hence, 15°. 34'. 45°; of west
			• •	peak 17°, 18. 30°.
Curi áli	30 57	37	Ditto	Left bank of Jumna, here 17 feet wide,
				and knee deep. Curs ali is at the foot
				of the Jumnautri snowy peaks, and s
			•	miles from Jumnautri. In the latter end of April, the snow was 2 feet deep
•				in shaded places in the village. There
			•	are about 25 houses.

Places.	Latitude.	Province & District.	Remarks.
	0 1"		
Jumnautri	30 59 10	Rewaen	The head of the Jumna, at the foot of steep snowy mountains of Jumnantri. The stream was 3 feet wide, and a few inches deep, formed by the melting of the mass of snow, which overlaid the bed, by the steam of the extensive and powerful hot springs, which are here. The bed of snow, concealing that stream, was 40 feet O inch in thickness. I descended to the bed of the stream, by a hole in the snow bed, made by the hot steam. Various domes and excavations in the snow, over-arch the Jumna;—they are caused by the hot steam. The bed of the stream, for the last 1½ miles, is wholly concealed by deep snow; it is bounded by high mural precipices, at the distance of 50 to 100 yards asunder. Lat. by 8 sets of circum-meridional alts. of . A bad barometer stood at 20.4—Air 62°.—Mercury 37° (in
10 10 10 10 10 10 10 10 10 10 10 10 10 1	30 44 53 30 48 28 3	Ha. <i>Ditto</i>	Deserted village, in the Shilba glen, which runs from the Jumna to the crest of the Jackeni ghat, on the range which separates the Jumna and

Places.	Latitude. Province & District.	Remarks.				
Suc'hi	°   '   "    30 59 40 2 Hn. Rewarn	Small village, 1000 feet above the right				
	40 Ht.	bank of the river, where it breaks through those snowy mountains, which are seen from the Doab height of Suc'hi. Above the sea 8494 feet, by barometer. Water boiled at 199°.				
lamp at cedar trees,	31 225 3 Hn. Ditto	Left bank of the river, within the snowy range, and at N. foot of Sri Cánta, and Semmurchu Chaunta snowy peaks. Bed of the Ganges, above the sea, nearly 8000 feet.				
Derali	30 2 34 Ditto	Left bank. Village of 6 houses, deserted.  Above Suc'hi and Jhala, there are no inhabitants:—beyond Derali it is not habitable;—all rock and snow.				
Bhairo-ghál í	31 1 38 ·7 Ht. Ditto	Right bank, at the confluence of the B'hágirathi (or Ganges) and the Jah- auvi river, hear the Sangha, and under precipices of vast height. A dangerous halting place.				
Do	31 1 22 · 5 Ditto	Left bank. Cliff above the Sangha.				
Gangautri	1 1 1 1	Hongson's mean of a and B Libra- Ref, circle. Herbert's Spica,				
2	35,5	and & Libra—(two nights)—Sextant Hongson's eight circum-meridiona				
Mean	30 59 30 -5	aits. or opica.				
	400 s. e :	Side of the Ganges, here, 43 feet wide and 18 inches deep,—spong current 26th May, 1817. Height above the sea				
CULTURE A STATE OF		10,073 feet: this may perlians be or 300 feet more than the truth, as the mercury in the barometers was no				
		well boiled in the tubes.				
Near the debouche of the Ganges from the great snow bed	33 56 32 ·5 Ditto	Hongson by a and B Ursa minoris- Ref. circle.				
·	37 - 5	HERBERT do. do. Sextant. At a small spot of flat ground, righ				
Mean	30 5 <u>6</u> 34 · 5	bank of the river. This place is ami snow, and surrounded by gigantic peak				
to the second of		cased in snow, from top to bottom The barometer indicated our haltin place to be 12,352 feet above the leve of the sea; one of the peaks was 947				
		feet higher, and distant 42,480 feet, and bearing E. 46. 44 S. To the feet an flanks of this, and other great peak				
		atretches a snow bed of unknow depth, and inclined at an angle of 7.—It commences at 6500 feet fro the present station, where the Gange				

Places.	Latitude.	Province & District.	Remarks.				
•			is seen issuing from under it. The breadth of the stream, was, on the 31st May, 27 feet, and 12 to 18 inches deep. The thickness of the snow bed, which overlaid the stream there, was estimated at between 250 and 300 feet perpendicular. The surface of the bed, was traversed as far onward as possible; its extent in length was about 6½ or 7 miles, its breadth 1½ miles; it entirely concealed the stream, which was not again observed and there is every reason to suppose, its first appearance is at the debouche, which I will call Maha de o's hair, and the latitude of which is 30° 55° 06°. There is no record of any person having penetrated to this place.				

The following observations of Eclipses of Jupiter's Satellites, will be useful in shewing the longitudes of Scharanpur, and several places in the mountains, the latitudes of which have been noted above. Till corresponding observations of these Satellites can be obtained from Greenwich, er some other Observatory, we must be content to compare them with the calculations in the Nautical Almanack.

Place.	Year	Month.	Mean time of observation.				iff	in time	Remarks.
	1		h.	m.	8.	h.	m	. 9.	
Mr. GRINDALL'S house, near Scharanpur	1817	July 13	11 6	32 21	35 57	1	10	38	This appeared to be a pretty good observation, but the air was not very clear.
Ditto	1817	July 29	9	50	58 .6		1	ł	
		Ň. A.	4	40	50	1	10	8 .6	Emersion of Jupiter's 1st Satellite. Sharp and good observation.
Ditto	Do.	August 14	8	10	12	1	1	1	1
		N. A.	2	5 <b>9</b>	51	5	10	21	Emersion, 1st Satellite. Good observation, but suspected. I saw it 3 seconds before, or at 8". 10". 09".

Place.	Year	Mon	th.			ine oj ition.	1	Diff.	in	ime.	Remarks.
Mr. GRINDALL'S	lion			-	m.	8,	T	110.			
House,near Scharanpur } Ditto	1817 Do.		. A.	4	54 5 24 1	6	1	510	17	-1	Emersion, 1st Satellite. Good sight
	•			3	134	3		10	31	-2	Emersion, 1st Satellite. The observation seemed good, but the plane was rather low.
Ditto	Do.	Oct.	15		55 43 45 25		1	10	18	-3	Emersion, 1st Satellite. A very good and sharp sight; a little moon light, but no hindrance.
Mean of the	1014	April	9.5		0 0			10	22	•37	Telescope, Dollond's 42 inch refr. —power 80—Chronometers, by BROCKBANKS and MOLINEUX; time, by equal alts. on all the wires of the circular instrument.
	1014	:	20		8.59			<b>1</b> 14	n	•5	Emertion, 1st Satellite—Telescope, Dollond's 34 inch refr.—aperture 2 <sup>in</sup> . 7.—power 80—an excellent glass of its size. The Greenwich 42 inch refractor can only spare it one second of time,
Dillo	Do.	Aprit	25		3 56		5	12	<b>.</b> 4:	•4	by actual trial.  Emersion, 2d Satellite—It came out close to the 1st—but, as usual, gives almost 1". later, or more, east longitude. Taken near the
		March	1	22	7 43 5 44		5	115	<b>9</b> ″	.5]	MEHANT'S temple.  mmersion, 1st Satellite—Good observation—Dollond's 42 inch telescope—aperture 2 <sup>th</sup> . 7.—power 80. The above temple, distant 1 <sup>th</sup> . 3 <sup>t</sup> . bearing 247 <sup>t</sup> .
	Do.	Auge		4.5	4 56		5	121	9		By Lieut. HERRERT—Dollond's 42 inch telescope—same power, &c. as mine. At Captain Young's Bungalow—Latitude 30°. 19°. 17." 5. Difference of longitude, compared with mine, some time, at Scharampur 2". 02° of time. I. B. The Bungalow is a second of time west of my place of ob- servation.
/mau	2700	Sep#	6	313	8 46	-2	5	122	2	-8 B	y Lieut. HERBERT, same place. This gives 1". 51". east of mine, of same night, at Scharanpur.

Place.	Year	Month	. [	Mean time of observation.			Dį	F.	in t	ime.	Remarks.	
		1	_[	0.	m.	8.		h.	m.		ş	
Chaur mountain, my pyramid, and station of observation	1817	Oct.	15	6	55 45	34 25	-9			59 9	,	An immersion of the 3d Satellit gave him 5. 12. 59. The date have mislaid.  Lieut. Herbert.—Mine of sam might, at Scharanpur, 6. 55. 43
Bhadraj mountain, N.	1814	May	2	9	54	35	-5					3. difference 8'. '4. is rather to little—should be 15'.
W. end of the Dun				4	53	36		5	10	59	•5	Emersion, 1st Satellite. Good of servation—N. W. peak of the mountain, at BALAB'HADRA's st tue.
Ditto	Do.	Do. 1	Oo.			48	*5	5	11	14	•,	Emersion, 2d Satellite—Clear—T 34 inch telescope, which is a second of time later than t Greenwich refractor, with whi it was compared in England.
Nahan	Do.	May	11			19 10	-7	5	8	9	•7	Emersion, 3d Satellite. A toleral good observation, below the w end of the town.
Ditto	1816	April	1	10	39	29 19	*9	5	\$	10	• • • • • •	Immersion, 2d Satellite. A go observation. Satellite lost lif for 32 seconds, before it disa peared—At Captain Wilso house, N. of the above place.
Oitto	Do.	May	9			50 22		5		28		Emersion of 1st Satellite being tersupted, I did not get a v good observation. Capta Birch's house, 100 yds. east the other place.
Matiana, in Comarsés	Do.	May	25	5 8 95	15	23 49			10	34	ŀ	Emersion, 1st Satellite. Not a go observation—The telescope, a steady.
Tranda in Canaur, on the Setlej, within the Himulaya	Do.	June	17			58			5 19	2 31	, i ! !	Emersion, 1st Satellite—a fine obsvation, and valuable. A long set distances of sun and moon, take by the reflecting circle, give 12. 24.—Lat. of Tranda 33. 42.—All the above by a

Place.	Year	Month.			Mean time of observation.			D	ff.	in t	ime.	Remarks.
		C. 38		-	in.	_	_	h.	m	8		Account the
(On the Jumna, within the mountains of Re- waen)		A!T										
Gira	1817	April	9			26	-5		13	29	•5	Immersion, 2d Satellite. Very clest observation—Satellite lost lustre 32°. before it went. This and the following observations, by most with the 42 inch telescope. Of the 10th, I took the 1st Satellite there was some doubt in noting the time, but I believe it will give 5°. 12°. 40°.
Banassa	Do.	April	16	17 12	16	5 29		5	14	36		Immersion, 2d Satellite. A tolerabl observation—but the dawn wa beginning; I think it might other wise have been seen 3 or 4'. la ter,
Curs áli, near Jumnau-)										١.		
vri, which bears 41° N. E	Do.	April	17	16	3	42 33		۱ ۸	13	9		Immercion, 1st Satellite—I enspeci
• • • • • • • • • • • • • • • • • • •		•	::			-					•	Immersion, 1st Satellite—I suspect ed I saw the glimmer till 16 <sup>h</sup> . 03 <sup>n</sup> 46 <sup>s</sup> . or 4 <sup>s</sup> . later, but not certain— Air very clear—Same day, Lieut Herrich observed the immer sion at Sikri in Rohile hand a 16 <sup>h</sup> . 06 <sup>m</sup> . 28 <sup>s</sup> . Difference 1 <sup>m</sup> 46 <sup>s</sup> .—Sikri is between Barcill
				ľ							•	
· :			•								·	
(On the Ganges, within the mountains of Re- waen)			- (									and <i>Chandausi</i> .
Reital	Do.	May	10				•5					
· · · · · · · · · · · · · · · · · · ·				11	1	5		5	13	16	•5	Immersion, 1st Satellite—Same to lescope. Air clear, but the was a slight wind.
Ditto	Do.	May	12	10	42	5 <b>6</b>				_		
			٠.	.5	29	33	'	5	13	23		A very fine observation, considering that the planet is so near opposi
	•		_					}	•	ľ	•	tion. The air calm, and in these elevated regions, exceedingly clear Satellite lost lustre 50°. before went. Same night, Lieut. Her
			•		·	·					,	
		,	•				•				,	BERT'S observation—The immer sion at 10°. 42° .09°. 9. at Cha
Ditto	Do.	May	11	14	13	35	•7		18		٠,	koorwara—lat. 30°. 22′. 30″.
		;		8	57	42	٠	5	15	<b>53</b>	•7	Immersion of the 2d Satellite—Cles and steady—I followed the Satel lite deep into the shadow. I continued to lose lustre for n

Place.	Year	Month.	Mean time of observation.		Diff. in time.			Remarks.
			h. m.	8	h.	m/	- 6-	
Suc'hí  Himálaya  N. B.—For the latitudes of this and the foregoing places, see the		June 13	928 413			14.	5 <b>3 ·7</b>	less than 76 seconds, before it finally disappeared. It gives a longitude more than usually east of the 1st Satellite. The planet being now so near opposition, is large and bright, and its glare is some impediment to the precision of observation.  Emersion—1st Satellite.  Night clear, and no meon. Lieut. It ensure and I, both observed; he caught the first glimpse 3 seconds before I did so; I have recorded his sight of it.

We could not take any observations of the Satellites higher up the Ganges than Suc'hi, as the great height of the impending cliff, (some times 50° above us), prevented our seeing Jupiter, when the Eclipses took place. By the same cause, I have lost many observations in other parts of the mountains.

The longitudes of all the snowy peaks, visible from it, will be deduced from the meridian of Scharanpur, by triangles, as well as their latitudes, distances and heights. The base for the purpose is that of the Chaur mountain and Scharanpur, the station signals at each place, being visible from the other, and at the distance of sixty-one British miles. The angles of the grand snowy peaks have been taken at each station with the circular instrument, as well as their apparent altitudes at different times.

Places.		ati	tude.	Province & District.	Remarks.
	_	·	'		
(March of the Reserve, from Rewarrie, toward: Jaipur.)  Rewarrie, (Camp, Head) quarters)		11	1	Delhi	7 furlongs S. W. of the town of Rewar- rie. Longitude, west of S. E. augle of the city of Delhi wall, 2". 28'. 5 of time or 37'. 07". of space, by trans-
Camp, near Bhawul	28	3	5 <b>9</b>	Kanaund	ferrence of time, by Molineux's chronometer.  Camp, & furlongs S. of the town. Distance 9". 1'.
Camp, near Bairud	27	53	1,	Alwar	Distance to Shahjehanpur, 11". 3'; to Bairud, 10".
Goojerbas	27	49	16 .1	Ditto	5 furlongs S. of the village; distance 8".  1'Hence, the observations were taken conjointly with Captain Barron, Assistant quarter master general.
Cat h putli	27	41	53	Ditto	Belongs to a small chief—1". 3'. S. west of the town of Kote; distance about 10 miles, but the wheel broke on the road—Longitude 24'. 15". west of Rewarrie camp.
Prayágpur	27	35	41 .r	Jaipur	7 furlongs S. W. of the town. Distance 9".4'.
Babra	27		31 22	H. Ditto	2 miles S. W. of the town. Distance 11 <sup>m</sup> . 4 <sup>r</sup> .
Manoherpur	l		1	-	r <sup>r</sup> / <sub>2</sub> miles S. of the town. Distance 13 <sup>m</sup> . 3'.
Samoat	27		46 45.9	H. Ditto B.	6 furlongs east of the town gate. Distance 12 <sup>m</sup> . 2½—Longitude by chronometers, 26' west of Kote, and Putli camp.
Nanghul	27	3	35,2	Disto	Distance 10 <sup>m</sup> . 6'.
Juwára	26	56	35	Dit10	Head-quarters. Distance 9". 6'. ½ Jai- pur is distant about 9 miles.
Sanganér	26	49	10 .9	Ditto	Mean of several sets of observations, by Captain Barron and myself—Head-quarter, Camp. Distance 10 <sup>m</sup> .0½. The N. W. bastion of the town of Sanganér, distant 1½ furlongs, hearing 164". 90'. Jaipur is about 7 miles from Sanganér—Longitude, west of Samout camp, by chronometers 1'.

					,
Places.	L	ati	tude.	Province & District.	Remarks.
Circumstances. rendering it out of our power to take any observations in the city of Jaipur, we measured a sufficient base, and took the distances of such remarkable objects there as were visible, and from the Trigonometrical observations, found the latitudes of the following places to be;					
High pillar, near the ob-	26	55	0		Total distant, Rewarrie camp to San- ganer, British 125". 7".
Palace of Nehr-gerh, on the hill	0	55	42		
Fort above east end of the town	0	53	53		
Fort of Mootie Doong- rie, between Sanganér and Jaipur,	٥	53	10		
fort of Atrouic, without) the wall, at S. W.angle)  (Sanganér, to Rewarrie town, by Raj-gerh and Alwar.)		54	26		The pillar east of Sanganér, camp 2'.  30'. Center of the city, nearly 3'. 14".  or 1°. 12'. 38''. west of the east wall  of Delhi, which I take to be about  77°. 14'. 15''. east of Greenwich, and  Jaipur 75°. 50'. 07".—Longitude,  east of Greenwich.
Gunur	26	46	37 .!	! 5 Jaipur	East side of the town. Distance from Sanganér, 9 <sup>m</sup> . 2'.
Bijací Bussei	26	49	5 <b>5</b>	Ditto	East side of the town. Distance 18.2.
Jeitwarra	26	59	36	Ditto	East side of the village. Distance 10". 3":
Kula Pahár	26	58	59	Ditto	1 furlong east of the small fort on the hill. Distance 14". 1'.
Carnaul	27	7	14	Ditto	2 furlongs N. E. of the village, part of it belongs to Jaipur, and part to the Ram Raja. Distance 14.7"—Observation of the latitude, not good. They call the country here Dhoonhar, and the Pergunna, Bhatteri.

Places.	Latitude.			Province & District.	Remarks.	
Raj-gerh	27	13	48	Alwar	A large and strongly fortified town in a recess of the hills, belongs to the RAM Rájá of Alwar; 3 furlongs west of the town. Distance 10 <sup>th</sup> . 4 <sup>th</sup> .	
(Longitude of Raj-gerh, east of Sanganer, 49. 30". by Chronometer.)					•	
Malacera	27	24	33	Dillo	A strong mud fort in the plain, with rauni and ditch, and a stone citadel within 4 furlongs N. of it. Distance 11". 3'.	
Alwar	27	34	1	Ditto	A large and strong town at the east foot of a steep hill, which is fortified—2½ furlong from N. E. angle of the town. Distance 13. 4.	
Baháderpur	27	39	47	Ditto	Small town and fort on a low hill. Distance 11". 1'.	
Crishna-gerh	29	49	31	Mewat	West side of the fort, which has about 16 stout mud bastions, a raum and ditch, and a stone citadel within,—stands on the plain, and belongs to Ram Rájá. Distance 12.	
Cot Cásin	28	1	34	Ditto	Small open town, belongs to the palace at Dethi. Distance 15". 3'.	
Rewarri	28	11	30	Delhi	Commissariat office—Rani-bagh, west side of the town. Distance 15 <sup>m</sup> . 3'.	

THE latitudes in this list were deduced from meridian and circum-meridian altitudes of the sun and stars, taken with sextants, or, more generally, by Troughton's reflecting circles—Except four places in *Huriána*, and five in the city of *Jaipur*, the latitudes of which were obtained by trigonometrical processes.

## ERRATA

Page 170—line 36, for 7108 read 7444 171—line 5, for 8494 read 8869 do—line 3, for 10,073 read 10,319