

the Government had given will be sent by Mr. Churchill, the Consul of Zanzibar, who happens, accidentally, to be in this country, and who is going out immediately. He will instruct Dr. Kirk to fit out a similar expedition to that which started last year, but which was impeded by an attack of cholera. The epidemic has greatly subsided, and the only difficulty now is to get to Ujiji, where Dr. Livingstone was when last heard of, unable to move forwards or backwards for want of carriers and supplies. It will take two months or more for these supplies to reach Ujiji from Zanzibar, therefore all anxiety must be put aside for months to come. In about seven or eight months good news might be expected, and soon after that he (the President) hoped we might see our friend again in his native country.

The following Papers were then read :—

1.—*Travels in Western China and Eastern Thibet.*—By T. T. COOPER.

THE writings of that gallant officer and gentleman, Captain Blakiston, who first explored the Upper Yang-tze River, leave me but little to say on the part of my journey relating to the Yang-tze Kiang. I shall therefore take my starting point from Ta-taian-loo, the border town and Customs Station of Western China.

I was detained here more than three weeks by the difficulty of procuring competent interpreters, and mules and ponies to serve as baggage animals. At last, having completed all my arrangements, I left the little border town on the 30th day of April, 1868, taking with me a good store of food, consisting of Chinese hams, flour, Thibetan butter, and a liberal supply of brick tea, with beads, needles, and thread, for barter; as beyond this point a handful of tea, a few needles, or a few yards of white or blue thread, are of more value than gold, silver, or copper coin; indeed, the latter are useless, while Sycee silver and rupees are only exchanged at a considerable loss.*

Leaving behind us the magnificent gorge of Ta-taian-loo, with its perpendicular walls of mountains, we followed up the stream, which flowing through it joins the Ta-tow-ho at the foot of the gorge; by noon we had reached the summit of the Jeddo range of mountains, which may be said to form the great natural wall of Western China. The toilsome ascent through a bleak country, covered with irregular masses of grey sandstone, blackened by time and weather, was amply rewarded by the splendid view which greeted us on reaching the topmost ridge; below us to the west gigantic wave-like mountains, covered with grass, rolled in vast masses for miles, as far as the eye could reach, without the vestige of a tree or shrub on them, but dotted here and there with herds of yaks and sheep; while a back-

* My party consisted of two interpreters, for the Chinese and Thibetan languages, and a mule-driver.

ground of snowy peaks, apparently of great height, completed the grandeur of the spectacle.

Descending into the grassy valley which lay stretched at our feet, a few miles brought us to our resting-place for the night at one of the Government courier stations, which occur at intervals of ten miles from Ta-tsian-loo to Lassa, the capital of central Thibet. Two days' journey through this grassy valley, bordered by mountains some three or four thousand feet high, brought us to the village of Tung-olo, where we were detained for two days by snow, which fell very heavily on the night of our arrival, rendering the pass over the Tung-olo Mountains (at the foot of which the village lies) impassable. We found the Thibetan people here very kind and hospitable; there were a great number of Chinese half-breeds, but only two real Chinamen, one a blacksmith and the other an old soldier, whose duty it was to look after the courier-post. On the morning of the third day after our arrival, some shepherds from the mountains reported the pass safe, and shortly after daylight we made a start, and reached the snowy summit of Tung-olo about midday. We found the snow from three to four feet deep, and the sun's rays reflected from it obliged us to bandage the eyes of our mules and ponies, while the air was so rarified that breathing was quite a painful labour. From this point two days' journey brought us to the little town of Hokow, situated on the left bank of the River Yarlong, a tributary of the Kinchar or Yang-tsze River. Our road led us through a wild mountainous country, in which at times we crossed high rugged mountains, and then descended through magnificent pine-forests into beautiful fertile valleys, dotted here and there with the flat-roofed houses of Thibetan cultivators, whose fields were green with spring crops of bearded wheat and white peas, and invariably planted round with fine old walnut-trees, few countries in the world perhaps growing finer walnuts than the valleys of Thibet.

Opposite the town of Hokow the River Yarlong runs for about four hundred yards in a deep unbroken stream, the milky hue of its waters bearing evidence of the limestone mountains, whose torrents feed it on the way from its source in central Thibet. This spot affords the only place for a ferry that occurs for miles, as both above and below the channel is broken by falls and rapids.

The means employed for ferrying over brick-tea on its way to Lassa are somewhat novel; large circular baskets, six or eight feet in circumference, are covered with green hides, which, when laden, float lightly on the water; and presenting but little obstruction to the current, are easily paddled over by the Chinese half-breeds, who are exclusively employed on this work.

For the convenience of travellers of distinction (who have passports from the civil officer at Ta-tsiang-loo) large boats are provided in which their baggage, mules, and ponies are taken over.

From Hokow it is four days' journey to Lithang, a Chinese and Thibetan military station, famous for its gold-roofed Lama monastery, containing about 3500 Lamas. The country travelled before reaching Lithang is wild, but abounds in beautiful scenery. Occasionally, as we struck some deep valley, our road lay through forests of wild tea-trees, white with their convolvulus-like flowers. At other times our path was lined with wild gooseberry-bushes, laden with blossom; then leaving these pleasant spots, the road would lead us up the side of steep mountains covered with a thick forest, affording shelter to numerous herds of deer; the stillness unbroken, save by the bells of our baggage animals, or the occasional report of some hunter's gongall, repeated by answering echoes through the gorges. After descending from the bleak summits of these mountains, the heat of the valleys was most oppressive, and affected us with a painful lassitude; unfortunately, my thermometer—the only instrument I had ventured on taking with me—had been broken in ascending the Yang-tze Rapids, and I was unable to record the changes of temperature.

Lithang is situated on a high grassy plateau, surrounded by mountains of perpetual snow; and indeed the whole country from Ta-tsiang-loo, gradually increasing in elevation, seems at this point to reach a climax. Not a sign of vegetation beyond grass is to be seen; and the town, built on the plains at the foot of the mountains, and surrounded by a wall, stands out, making the nakedness of the country still more marked, reminding one of the cities seen along the shore of the Gulf of Cutch. The traveller could almost fancy he was entering some great city of the dead, for all is quiet; no sounds break the stillness save the distant mournful tones of the Lamas chanting their prayers; while high overhead the lazy Turkey buzzards and huge croaking ravens sail in circles over the city, ready as it were to swoop down and gorge themselves on dead humanity. On entering the city one is immediately struck by the solemn air of the people. Numbers of Lama priests are to be seen dressed in flowing garments of green cloth, each devoutly twirling his prayer-wheel, and muttering the great Thibetan prayer of 'Om Mani Padmi hum:' but not only amongst the Lamas is this solemnity of demeanour noticeable; even the rough tea-traders and townspeople, dressed in their sheepskin coats, carry prayer-wheels, which they constantly twirl and join in the universal cry of "Omani peminee, omanee peminee!" which, with one exception in the case of a great Lama from Lassa, was the only way in which I heard the

prayer of 'Om Mani Padmi hum' rendered during my travels in Eastern Thibet; and none of the people or Lamas could translate their prayer to me in any other words than "Glorification of the Deity."

After a day's rest, I was glad to leave Lithang, not only because of its great altitude and rarified air, which rendered breathing an act of pain, but also on account of the excitement my arrival caused amongst the Lamas, who (taught by the Chinese) looked upon my coming as the forerunner of the annexation of their country by the Palin or white Conquerors of India, and met me everywhere with scowls of hatred, and muttered curses. I, however, visited their monastery alone, and without molestation either from them or the great crowd of people which followed me.

I was much struck by the physique common amongst the people of Lithang, which I did not notice in other parts of Eastern Thibet, where the people are mostly tall in stature, with a profusion of black hair hanging over their shoulders, while their complexion is a very dark brown; but many of the Lithangites are thick sturdy fellows, with short woolly hair, and lighter complexion, forming a great contrast with the general appearance of the Eastern Thibetans.

During our stay in Lithang I discovered that our Thibetan interpreter had been systematically plundering my packages of tea, beads, &c. I therefore discharged him. I may here add that the loss of his services did not entail much inconvenience, as our muleteer spoke Thibetan and Chinese; and, besides, we usually found some one acquainted with Chinese in the Thibetan villages.

We left next morning in rather low spirits (as we had not been able to add much to our stock of provisions, which were now very low), and, accompanied by two half-bred soldier spies, crossed the plain, and ascended the snowy range opposite the town; a more truly wild country than these mountains present is impossible to conceive; vast masses of quartz and granite lay scattered over the sterile surface. The huge masses of grey granite piled one on top of the other, rise into gigantic broken pyramids, crowned with snow, the melting of which caused a thousand tiny streams to trickle across our path, in the sands of which, as the hoofs of our cattle ploughed them up, we saw abundance of scaly gold, tempting the unsuspecting traveller to stop and gather the treasure. But gold, like all else of a yellow colour in Thibet is sacred to the Grand Lama; at least, so the two spies informed us; and I was forbidden even to take up a handful of the golden sand.

We travelled for five days' journey through such a country as I have described, pinched by cold and hunger, to the foot of the

Taso Mountains of perpetual snow. During four days out of the five we suffered very much from hunger, as our stock of flour, which was all but exhausted before leaving Lithang, scarcely allowed us six ounces per day; and our two remaining hams were discovered, on cutting into them, to be useless, the flies having got at them. Our horses and mules, beyond a pint of peas per day, had nothing to eat (for the mountains did not produce a blade of grass), and were a source of great anxiety to us. At the end of the first day from Lithang we put up for the night in a courier's hut, built on the summit of the mountains, and half-buried in snow and ice. It was a little place, about 24 feet square, built of mud and stone, and in it the courier, his wife and two grown-up children, myself and two interpreters, the two soldier spies, a cow-yak, and calf, two of my ponies, and two belonging to the courier—making in all nine persons, four ponies, a cow and a calf—pigged it out for the night; and beyond the ravenous attacks of vermin (whose power of tormenting, however, soon gave way before the fatigue of travelling in these mountains) we slept comfortably, and, above all, warmly.

The ascent of Taso was dangerous and exhausting to our already weak baggage-animals, who laboured over the snow, resting at every ten paces, with their noses to the ground and tongues out, gasping for air; while both my interpreter and myself suffered acutely from the rarefaction of the atmosphere, and drew breath with difficulty, the blood flowing from our noses and gums.

The pass over which we crossed led between two abrupt snowy peaks, which, towering into the heavens, rarely uncover their hoary heads, and were truly magnificent in their white grandeur.

These mountains run, in well-defined ridges, from this point northward for some hundred miles, feeding the head-waters of the Yarlong and Kinchar rivers by innumerable mountain-torrents; while to the southward they extend about one hundred miles, finally losing their height and uniformity before reaching the Siu-shan, or Snowy Mountains, on the west of Yunnan.

Sleeping for the night on the west side of Taso, we next day reached Bathang, the border town between the eastern and central kingdoms of Thibet. Bathang, unlike Lithang, is situated in a beautiful fertile valley, in a climate resembling the north of Scotland, and forms the great central trade-mart, to which resort traders from the central kingdom and Mongolia to purchase tea, which is brought from Western Sz'chuen via Ta-taian-loo. The little valley of Bathang, about four miles long and two broad, is the Eden of Eastern Thibet. Here are reaped annually two crops of wheat, while the small white pea grows luxuriantly, as do also a long-

shaped, turnip-flavoured vegetable, cucumbers, Chinese cabbages, potatoes, leeks, pears, peaches, walnuts, and water-melons. Fish (from the tributary streams of the Kinchar-kiang), mutton, and fowls, are plentiful and cheap. Supplies sufficient for one day's provision for four men are easily obtainable for a skein of silk-thread, a handful of tea, or a dozen needles.

It can readily be imagined what a paradise this little spot was to us poor travellers and our jaded animals, and the latter were soon standing up to their knees in fresh-out green wheat.

I was informed that from Bathang I could reach the town of Roomah, about 150 miles distant, in the district of Zyul (lying immediately on the borders of Assam), in eighteen days. Surprised at my good luck in being about to terminate a journey which had already occupied five months, I prepared for a start; but, on the very eve of departure, the Chinese officials informed me that I could not proceed by this route, as I should, in pursuing it, have to enter the central kingdom before reaching "Adzara," such being the name given to Assam by the Thibetans.

Two days more passed at Bathang—during which I used every persuasion and inducement to be allowed to go on—were spent in vain; and at last, completely foiled, I was obliged to content myself with a passport authorising me to travel towards Burmah via Talifoo, the Mahomedan capital of Yunnan. I thus found myself defeated in my grand object by the combination of jealousy on the part of the Chinese, who dread the loss of their monopoly in the tea-trade with Thibet, and the fears of the Lama priesthood, who foresee in the advent of foreigners to the Sacred Kingdom the destruction of their religion, which at present keeps the inhabitants in a state of ignorance and superstition, and reduces them to live in utter misery and bondage to the priesthood.

Leaving Bathang, I crossed the Kinchar-kiang, and for four days traversed a wild mountainous country. At the end of this time I reached Parmootan village, situated at the foot of the range of mountains which form the boundaries of Central Thibet. Next morning, on attempting to ascend the mountains, for the purpose of ascertaining whether I should really be stopped or not, we fell in with a body of some three hundred soldiers, who were stationed there to arrest me if I attempted to proceed. Dismounting close to where the main body were drawn up, I lighted my pipe, and entered into conversation with them. They were greatly astonished at what they termed the Palin's audacity in approaching them; but, soon understanding that I was not intent on forcing a passage, a number of them dismounted, and extinguishing the matches of

their gingalls, which they had lighted on my approach, seated themselves beside me, the rest standing at a respectful distance. I told them they were foolish to stop me, as I was only a merchant, and asked them why so many men had been sent to arrest one individual. They evinced great curiosity, marked with fear, about my revolver and rifle, which they had heard described as wonderful death-dealing engines, and asked me to fire my revolver; on doing so, they testified their astonishment at each discharge by shouts of "Al-lay!"—a favourite Thibetan exclamation of surprise. They laughed, and expressed unfeigned pleasure that I had determined to go to Yunnan, as their orders were to stop me at the risk of their lives; and they had fancied, from the description of my weapons brought to them by spies from Bathang, that I would have killed a great number of them before I could be stopped, especially as their orders further forbade them to hurt me.

After a short time spent in joking with them I remounted, and, riding off towards the south, struck the left bank of the Lantsan River.

Following the river, we traversed a still wild country, at times descending into long fertile valleys, green with wheat-crops, and on the eighth day reached Atenze, a little Chinese military station, on the borders of Yunnan. This town is famous for its trade in bleached lambskins and hams; the inhabitants are principally half-breeds; there are also a great number of Lamas living on the industry of the people.

Continuing on from this place for three days, our road led us along the precipitous banks of the Lantsan River, occasionally running close to the water's edge, then ascending 1200 or 1400 feet. It wound along the face of the bare slaty mountains, which rose in some places at an angle of 75° or 80°, the river below us looking like a tiny mountain-stream, although it was generally from 150 to 200 yards in width. On leaving the wild country at the end of the third day, we arrived at the Ludzu country, which extends westward beyond the Noukiang, and is inhabited by a tribe of that name, and put up for the night with a Christianised Ludzu family, who received us with great kindness and hospitality, evidently taking me for one of their spiritual Fathers. Their village consisted of a dozen log-houses. The Ludzu tribe are most barbarous in their habits and mode of life. In saying this, I must be understood to except the Christian converts, who have adopted the ordinary Chinese costume, and whose pursuits are those of industrious and peaceable cultivators; but the rest of the tribe are a terror to their neighbours, against whom they carry on a continual

warfare. I was informed that they raise no crops, but depend for their subsistence on the chase. Armed with crossbows and poisoned arrows, they are bold and successful hunters of deer, mhitton, or wild cattle of the same species as are found in Assam, wild boars, wild goats and bears, and also leopards. In religion they are utter heathens, sacrificing fowls to propitiate the evil spirit. In appearance they are darker than any other of the tribes I visited, and wear their hair long. Their costume, if it may be so called, consists of a girdle of cotton cloth or skins—at least, the warriors of the tribe whom I saw passing through Weisee, on their way to fight in Yunnan, had no other garments, except a few of the leaders, who wore cloaks of leopard, goat, or fox skins hanging from their shoulders. Their arms, like those of the other tribes, consisted of knives brought from the Khamti country, on the borders of Assam, spears, and crossbows. They owe no allegiance and pay no tribute to the Chinese authorities, but occasionally serve as voluntary allies for the sake of plunder, and I was informed they could muster about 1200 fighting men.

Crossing the Lantsan here by means of a bamboo-rope stretched from bank to bank, I paid a visit to two French missionaries who live at the little mission-station of Tz-coo, on the right bank, about 80 miles east of Manchee, visited by Captain Wilcox, and was received by them with great kindness and hospitality. These brave men are engaged in converting the Ludzus, and have many converts among them, often visiting the sick beyond the Noukiang. Having rested a day with the Fathers, I recrossed the Lantsan and continued my journey through a country inhabited by the numerous tribes of Yatezus, Mooquors, Mosos, and Leisus: the chiefs were exceedingly kind, and with one or two of them I remained several days. These tribes live in small villages, each under its own head-man, the whole tribe being ruled by one chief, who holds the Chinese rank of Blue-button, and is a tributary of the Chinese Government, having authority in all cases except those involving life and death, which are referred to the nearest Chinese mandarin. The whole of these tribes, in the order in which I have mentioned them, inhabit a strip of country lying between the Kinchar Kiang and Lantsan River: they are peaceable and industrious, cultivating peas, tobacco, opium, and scanty crops of cotton; they also collect gold, both by washing the sands of the Lantsan Kiang and by mining in the hill-sides. Each tribe pays a tithe to its chief, who in turn pays two-thirds of his share as tribute to the Chinese Government. In appearance and costume they closely resemble the Chinese, shaving their heads and wearing tails. The men invariably wear the blue cotton jacket and

short trousers, common in China. The costume of the women is fantastic but graceful: it consists of a head-dress of red cloth, closely braided with cowrie-shells, for which the Moso women occasionally substitute a very becoming little cap or hood of red and black cloth, with pendent tassel, a short loose jacket with long wide sleeves, and buttoned up the front, and a kilt-like petticoat of home-made cotton stuff, reaching from the waist to the knee, and made in longitudinal plaits or gathers—the ladies will pardon me if I do not use the correct expression. Instead of stockings their legs are swathed from the ankle to the knee with white or blue cotton cloth, while leather shoes, turned up in a sharp point at the toe, complete the toilet of these mountain beauties, who, though not quite so fair as Chinese ladies, are generally well proportioned and fine looking, and unembarrassed by the reserve of the fair Celestials. As ornaments they wear huge silver ear-rings, resembling in shape the handle of a common key, silver rings and bracelets, and bead necklaces. Amongst these tribes are found both the Buddhist religion and Chinese worship of ancestors, some families professing one and some the other.

Continuing on my journey I reached the Imperial Chinese city of Weiseefoo. Here I rested three days, and having procured passports from the General Commanding, authorising me to pass on my way to Talifoo, I left, and travelled through a country which had gradually become more open; our road leading us at times over long stretches of table-land, growing rice, potatoes, peas, wheat, barley, tobacco, opium (to the use of which the people are greatly addicted), and sugar, and in three days was fairly into the Tze-fan country.

The Tze-fan tribe inhabiting it closely resemble the Chinese in feature, dress, and mode of life. Although industrious cultivators, they bear an evil renown as treacherous and warlike banditti; and that they deserve it I had ample proof, having been attacked twice in the first three days of my journey through their country. They have amassed riches by the impartial plunder of Imperialists and Mahomedans; but as they have latterly imbibed a wholesome dread of the Mahomedan Government, they rarely attack travellers under its protection and confine themselves to forays in the Imperial territory, except when the advance of a large Chinese army compels them to join the strongest party for the time being to save themselves from being plundered. In the evening of the third day we reached the residence of the chief, who received us hospitably. His house was richly furnished from loot, taken in the sack of Likiangfoo Hochin (or Hoking, as it is called in the maps) and Weisee, these cities having repeatedly changed hands during the fourteen years' border warfare. I was much disappointed to find that he was

gathering his forces together for the purpose of joining the advancing Chinese army in a raid upon the Mahomedans, of whom he had been (until a day or two previous to my arrival) a staunch ally. I had counted on obtaining from him the passport necessary to enable me to enter the Mahomedan country, and although I had come thus far without it I could go no further. He persisted, however, in refusing to allow me to proceed, fearing the responsibility of our death in his country, and urged me to return to Weisee and abide the result of the forthcoming struggle. This chief is renowned amongst the border tribes both for his daring in the field and for his consummate political cunning: the latter is evident from the fact of his having repeatedly changed sides and still maintaining his position. The chief's persistence in refusing to allow me to proceed, added to the unsettled state of the country, rendered our retreat on Weisee absolutely necessary, and we left him, with many signs of good-will on his part, and retraced our steps to Weisee, where I and my Chinese interpreter were, shortly after our arrival, imprisoned by the civil mandarin, who, after a vain attempt to rob me of the little money I had, determined to put us to death. Owing, however, to the friendly interference of the Mooquor, Leisu and Moso chiefs, we were eventually released and allowed to return to Szchuan, after being imprisoned for five weeks; and thus, after eight months of painful anxiety and privation, I was compelled to retrace my steps to Shanghai.

Concluding here this slight sketch of my travels, I will add, in a few words, the results of some rough observations on the physical character of the country traversed, and especially as affecting the possibility of a trade-route between India and China. More scientific and learned men than myself have gone astray in speculations on the course of the three great rivers—Kinchar, Lantsan, and Ludzu, or Noukiang—from their sources in Thibet. I will simply observe that the courses of these rivers are laid down in the Chinese Topographical Surveys, made by order of the Emperor Chung III., comprising the country of Thibet and province of Yunnan, from which surveys the Jesuit maps have been compiled, and that they are therein represented as being the upper waters of the Yang-tsze, Cambodia, and Salween respectively. I am not aware that any doubt has ever been thrown on the identity of the Yang-tsze with the Kinchar Kiang. With regard to the Lantsan, having followed its course from Bathang into Yunnan, I found that it agreed with that assigned to it by the Chinese surveyors; I am, therefore, inclined to believe that their representation of the identity of the Lantsan with the Cambodia River is correct. As to the Noukiang, not having traced

its course, I am obliged to leave it at the mercy of the theorists; but I trust that the geographical importance attached to this part of the world will, before long, lead explorers to remove, by actual observation, all doubts on the subject—for in no other way can we decide the question whether these three rivers do or do not break from Thibet within a few miles of each other, and flowing in courses parallel and at some points scarcely 10 miles apart for nearly 200 miles south, form the upper waters of the Yang-tsze, Cambodia, and Salween rivers.

From the Jeddo range of mountains, near Ta-tsi-an-loo, up to the banks of the Lantsan River, I crossed range after range of mountains, all running from the north-east to south-west, and the great snowy ranges lying on each bank of the Lantsan and Noukiang rivers are a continuation of the great ranges, which, rising to the north of the Thibetan town of Tsi-am-do, must form at their conjunction with the Himalayas what I believe to be the chief barrier to direct communication between Bathang and Lássa.

I am influenced in believing that this conjunction of the two ranges does occur, by the fact that the great high road from Sz'chuen to Lássa, after following a course about 40 miles due west from Bathang, turns sharp to the north on encountering the first ranges on the left bank of the Lantsan, and running parallel with them almost due north for about 200 miles, crosses a pass in them of enormous height, near Tsi-am-do, then turns again and follows a south-west course to Lássa, thus describing two sides of a triangle, near the base of which some great physical difficulty must occur, otherwise it is natural to suppose the road would follow its course a little north of west direct from Bathang.

The existence of the great convolution of the Himalayas with the Patkoi Range, near the north-east frontiers of Assam, has been put forward as a reason for the impracticability of the route from Assam to China; but in following up the upper waters of the Brahmaputra to the very borders of Thibet, during my late pioneering journey in the north-east from Assam, I did not observe nor could I hear of any such convolution of mountains; whereas from Roemah, only four days from the point I reached on the left bank of the Brahmaputra, couriers leave daily for Lássa and Peking, striking the high road four days' journey west of Bathang, a little beyond where it turns to run north.

Taking the existence of a route between Assam and China, as proved, I have arrived at the conclusion that the Himalayas (if they do meet the great ranges running north and south in Eastern Thibet), must do so somewhere to the north of the line of route between

Assam and Bathang, and that the convolution of these mountains does not in any way interfere with communication between India and China.

31st May, 1870.

2. *The Irawady and its Sources.* By Dr. J. ANDERSON.

[EXTRACTS.]

I AM no disciple of the theory that the Sanpo is the Irawady, and, in view of Turner's account of the Sanpo and the accurate observations made by Captain Montgomery's pundits, I cannot see how it is possible, at the present day, that any one could be found prepared to re-advocate its claims. It appears to me, however, that Klaproth's hypothesis has done good service to the Irawady, in so far as it excited an interest in the discovery of its sources, and gave it that importance, to which it is entitled by the enormous body of water which it carries to the sea. The very circumstance that so many able geographers have been found willing to pin their faith to the theory in question seems to indicate that there must be some foundation for the opinion that the main stream has its source a long way to the north of the Khamti Mountains. This, however, only by the way, for such evidence is of little practical value.

Wilcox gained his first view of the supposed main stream of the Irawady from the hills which separate the Namlang, one of the affluents of the eastern branch of the Brahmaputra, from the plains of the Upper Irawady. The stream winds in a large plain, spotted with light green patches of cultivation and low grass jungle. On reaching its banks he states that he and Lieutenant Burlton were surprised to find but a small river, smaller even than they anticipated, *though aware of the proximity of its sources.* It was not more than 80 yards broad, and still fordable, though considerably swollen by the melting snows; the bed was of rounded stones, and, both above and below where they stood, they could see numerous shallow rapids, similar to those on the Dihing.

As to the general question of the origin of the Irawady, he proceeds to say he felt perfectly satisfied, *from the moment he made inquiries at Sudiya,* that Klaproth's theory that the waters of the Sanpo find an outlet through the channel of the Irawady was untenable; and now that he stood on the edge of the clear stream, which he concluded to be the source of the great river, he could not help exulting at the successful termination of his toils and fatigues.

On the east and west of where they stood, about lat. 27° 26', were peaks heaped on one another in the utmost irregularity of height