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confirm many of his own opinions. When that gentleman visited the lakes it was the rainy season, whereas he (Sir Richard Temple) made his journey in the month of October,—the finest period of the year. That might account for the region appearing even more beautiful to him than it did to Mr. Blanford.

Dr. Regel's Expedition from Kuldja to Turfan in 1879-80.

By E. DELMAR MORGAN.*

IN the 'Proceedings' of last year,† a brief reference was made to Dr. Regel's expedition to Turfan in 1879-80: I am enabled now to present to the Society the following further details of his journey.

Dr. Regel is the eldest son of the eminent botanist and director of the Botanical Gardens of St. Petersburg. He had travelled much in Turkistan, especially in the Kuldja region, where for some years he had held the post of district physician. His previous travels have been noticed in the R. G. S. 'Proceedings,' and his botanical discoveries have appeared in full in German scientific publications. This was his first expedition beyond the Russian border. His special qualifications for the task were a knowledge of botany and an acquaintance with native languages acquired by intercourse with the people, by whom he was universally liked. A strong constitution and an indifference to hardships or privations contributed to the success of his undertaking. It is probable, although we are not told so, that besides scientific objects, Dr. Regel was entrusted with a political mission, for at that time a collision with China appeared imminent, and exact information on the movements and strength of the Chinese forces was of course important for the authorities in Turkistan. His intention apparently had been to follow the Imperial Chinese highway to Urumtsi and Turfan, and from the latter place to turn southward to Lake Lob, that goal of Central Asian explorers, returning by the southern road via Kashgar to Kuldja. But the suspicions of the Chinese having been aroused, he was obliged to renounce the latter part of his plan. He is the first European in modern times who has visited Turfan; as its Mongol name signifying "residence" implies, this town has been a place of importance for many centuries. It was the chief city of the Uighurs after they removed hither from North-east Mongolia in about the ninth century, and the earliest records indicate it as a rallying point and centre for oppressed nationalities and creeds in the heart of Asia. Situated between China and Dzungaria, it preserved its neutrality, and escaped the fate which

* Dr. Regel's account of his journey is translated from the 'Proceedings' of the Imperial Geographical Society, vol. xvi. No. 2. The foot-notes to the present paper are by E. D. Morgan.

† Vol. ii. p. 489.

overtook its more powerful neighbours. Not only was it the resort of Mahommedans, but the votaries of all religions worshipped within its walls. Among the earlier travellers Marco Polo cannot be included as having visited Turfan, his route having taken him further south. Shah Rekh's embassy passed through it on their way to China in 1420, and found there a fine temple dedicated to Sakhya Muni. They experienced great cold on the way thither, and found, to their surprise, ice two inches thick, although travelling in summer. Nearly two centuries later, in 1605, the Jesuit father, Benedict Goez, was at Turfan, and remained there a month; his narrative, however, is almost wholly taken up with personal incidents and his religious polemics with the Mahomedan prince. But if Western writers are sparing in their notices of Turfan, Chinese literature contains ample materials for its history. It is mentioned under various names, that of Kara-hodjo (hotun) being among them. The region is described as rich in minerals, with a fertile soil and vast herds of horses pasturing on the hills. The prince had his summer residence on the northern side of the mountains at Urumtsi, of the present condition of which some interesting particulars are given by our traveller. A notion prevailed in Western Europe that the region of Turfan was highly volcanic. Ritter, relying mainly on the authority of Humboldt, speaks of the active volcanoes of Peh-shan, north of Ku-cha, and Ho-chau near Turfan, the one sending forth streams of lava, fire, and smoke, the other burning like a beacon. He also describes the remarkable solfatara of Urumtsi, and the sal-ammoniac and asbestos collected by its inhabitants. In the following narrative no allusion is made to anything of the kind. Dr. Regel indeed speaks of the intense heat of Turfan obliging its inhabitants to live underground in chambers excavated by the side of their aqueducts, and it is probable that its hot, rainless climate or the reddish colour of the rocks originated its name of Ho-chau or "fire-city," applied to the district as well. Of active volcanic phenomena nothing is seen in Central Asia at the present day, and we are left to infer either that Humboldt was misled by Chinese traditions or that he theorised from his experiences in the Cordillera of the Andes. The whole subject may perhaps be thoroughly investigated at some future day, for space will not allow me to extend these prefatory remarks.

Dr. Regel left Kuldja on the 4th of May, 1879, with a party of four soldiers, one Manchu, two Kara-Kirghiz, and a Kazak-Kirghiz. Sixteen horses and four camels composed their caravan. Starting in a north-east direction up the Pelliuchi rivulet, they crossed a pass 7000 feet high in the direction of the Borborogussun river, near the sources of the Djirgalan, and moved north along the Pelliuchi.*

* The route of Dr. Regel was really this. He followed the Pelliuchi upwards in a north-east direction. Having crossed the watershed of the Borohoro or Iren-Habirgan Range, in order to descend to the Chinese imperial highway at Djin-ho, he must have

Leaving the picturesque and deeply indented valley of the Borborogussun, it was necessary to cross plains and hillocks of sand before arriving at Djin-ho. Antelope and pheasants abounded here. But the heat was oppressive (145° Fahr. on the sand), and with camels it was impossible to travel fast or make long marches. At Djin-ho Dr. Regel's Chinese acquaintances provided him with the necessary documents to enable him to proceed to Shi-ho, although merchants were turned back.

Beyond Djin-ho the country is barren desert with dry, salt-encrusted lake-beds, affording the party an opportunity of replenishing their supply of this indispensable article. After pursuing their journey about 40 miles they came to the Chinese outpost of Tatu, situated in a poplar wood (*Populus euphratica*), the only tree attaining any size in these dry, salt deserts. The garrison, numbering about 60 men, came out to meet Dr. Regel, and after some interrogations allowed him and his party to proceed without hindrance. Their next halting-place was the outpost of Kum-tam, on the Tallik, an almost dry river-bed, and at a distance of 40 miles from Tatu they reached Sigoshur. Here, notwithstanding his credentials from Djin-ho, Dr. Regel was very discourteously received, and was informed that no Russians were admitted. The travellers encamped in a wood of elms near Sigoshur, having been almost compelled to use force in order to regain possession of their horses which had been taken from them by the Chinese. Three days were passed in vain expectation of the coveted permission to proceed. At length Dr. Regel started without leave for Fintadja, a small village on the border of the wood, seven miles from Sigoshur. Here he left his escort and rode forward, accompanied by only one of his native servants and two soldiers, across a well-cultivated though unfruitful plain to Shi-ho, 23 miles further. But, although Dr. Regel found General Shilaussun at this place, the kindness and attentions he had previously shown to this officer and his suite when they visited Kuldja, were ill requited, and no final answer could be obtained. Efforts were made to dissuade Dr. Regel from his intention, and much was said of the dangers of a journey to Turfan, but to these he paid no attention, and on the third day after his arrival he at length received an answer communicated officially that not a single Russian could be admitted into the Celestial Empire until Kuldja were restored to China.

Nevertheless Dr. Regel was permitted to return through Chinese territory to the river Kash, and thence to Kuldja. But the Chinese are

followed the valley of some river flowing north. The Borborogussun is mentioned, and a river of this name, with the qualification "Southern," appears on the Russian map of Turkistan (40 versts to the inch), emptying into the Ili. It may be that another river of the same name, and in about the same meridian, starts from the opposite slope of the mountains and flows towards the Borotala, possibly the one alluded to. The valleys in the Borohoro Mountains are generally prettily wooded, apricot trees (*urink*) being especially abundant.

ignorant of the geography of their country, and only maintain posts along the caravan roads. This circumstance induced our traveller to believe that he might circumvent them and reach his goal by another way.

On the 24th of May, Dr. Regel, escorted by two officials and servants, left Shi-ho, and arrived at Sigoshur, ostensibly to prepare for his return to Kuldja, and indeed he went as far as Kum-tam, but at the first poplars he turned off the road and marched southwards up the course of the Tallik through a stony plain. There the party were safe from pursuit for a while. To this plain at nightfall herds of kulans or wild asses descend from the mountains. The travellers encamped for the night at some distance from the Borohoro Mountains, but took the precaution of not lighting fires, for fear of betraying their whereabouts to the Chinese.

The following morning they arrived at the ravine whence the Tallik issues as a foaming torrent, and rode along a mountain track, having every now and then to stop and make it practicable for their baggage animals. Several neglected mines, formerly yielding gold and silver, as it was reported, were passed.

On the 27th May, at an altitude of 4000 feet, they began a steep ascent, at first in a south-west direction, and afterwards west. Here some choice plants, including entirely new species, were added to the herbarium. At 7000 feet they fell in with a pathway leading west through cliffs devoid of arborescent vegetation. Here, 27 miles from their night camp, they looked down upon the upper course of the Tallik, whilst on the south a stupendous icy chain extended towards Lesser Yulduz.*

"At our feet," writes Dr. Regel, "a magnificent panorama unrolled itself. Unfortunately we could not tarry, for our supply of water had

* The Tallik is not marked on the Russian map. Supposing it to be in the same meridian as Kum-tam, i.e. in about 82° E. of Greenwich, the great chain on the south would be the main axis of the Borohoro Range, attaining, as Dr. Regel estimates, the very considerable elevation of 16,000 feet above sea-level. When this region is more known, a correct idea may be formed of its extent, the grandeur of its scenery, its great snow-clad ranges of mountains, its deep and rapid rivers, its rich pasturage, its glaciers and waterfalls, its springs, its luxuriant vegetation, its wooded valleys, where year after year millions of apricots and apples ripen only to litter the ground or to be devoured by wild beasts, its mineral wealth, its inexhaustible coal-fields, its capacities for agriculture—natural advantages at present neglected, for the country is almost uninhabited, except in the immediate vicinity of Kuldja and the few Taranchi villages up the Ili and the Kash. The valley of the Kungës is deserted along the whole course of this river from its confluence with the Tekës; no human habitations disturb its solitudes, no herds of cattle feed on its rich pasture grounds. A mournful silence broods over everything, and wild nature reasserts her sway. Such is the fate of countries and races subject to China. The Kalmuks, a Mongol race who long ago submitted to her, and to this day wear the plait of hair in token of their allegiance, are becoming extinct. The Kirghiz, on the other hand, advancing from the west under the protection of Russia, are everywhere occupying the camping grounds of their ancient foes and rivals. Is not this a significant fact, not to be lost sight of in a forecast of the future?

run short. In order to discover a pass across the Iren-Habirgan Range [Borohoro], I crossed the border marked with firs; but our attempt was unsuccessful, and a hailstorm compelled us to retire. A second effort proved equally unsuccessful; the glaciers were thickly covered with snow, and afforded no foothold for horses and camels. Much further south the glacier rose to a height of at least 16,000 feet."

On the 5th June, after a halt of a few days to collect plants and insects, the expedition resumed its journey towards the south along a river flowing out of the Iren-Habirgan. Here vegetation was scanty, only a few trees growing along the crests of the hills over which the frontier line was carried. The scenery, however, was wild and impressive. On either side rose cliffs several thousand feet high, crowned with pinnacles and great *aiguilles* of ice, and waterfalls descended in sheets of spray. Every time Dr. Regel attempted crossing the glaciers, clouds collected, and snow and sleet drove him back, rendering it extremely difficult to find a road. Indeed, there are no roads in this wild, majestic, mountain country. The only means of advancing is by shaping a course across ravines, and fording, as best one can, the mountain streams. The Chinese hunter accompanying the party was all but drowned, as in the excitement of the chase he attempted to cross the Talik in pursuit of a wounded stag, coveting its horns, not for Dr. Regel's collection, but in order to obtain from them the life-elixir so highly prized by his countrymen in China—a divergence of interests which prompted him to ask for leave to return home.*

From this point of their journey the travellers continually ascended for about seven miles to the valley of the Kum-bel or Kum-daban (also called by Mongols Tortu-gol or Epteh), and having crossed the watershed at an approximate height of 9000 feet, descended without difficulty to the belt of pine forests. Here they found an abandoned Torgute shrine, surrounded by graves and cells. In one of these, evidently used for sacrificial purposes, lay a number of MSS. of the time of Batu-wang,† and clay idols, of which Dr. Regel made an interesting collection. Unhappily, his guides had become so mutinous that he never slept without a revolver in his belt, for in Central Asia, as indeed everywhere, quarrels and dissensions among the hired people, their rival jealousies and intrigues against one another and their leader, are among the inevitable incidents of travel, and the source of embarrassment and annoyance to the traveller, often occurring at the most inconvenient time, when hardships and privations of all kinds have to be borne.

* A large trade in deer horns is carried on with China; those most highly prized are the young ones with the velvet still upon them, and these fetch a high price. The Borohoro Range is celebrated as the haunt of the maral or large deer (*Cervus elaphus*), hunted for this purpose.

† Batu, surnamed Sain Khan, the good prince, son of Juchi and grandson of Jinghiz, is presumably the personage referred to. His life and invasion of Hungary in A.D. 1240 are told in Part II. of Howorth's 'History of the Mongols,' pp. 36-102.

From the valley of Kum-bel Dr. Regel and his party crossed the Ulan-daban Pass at a height of 10,000 feet, leading to the district of Djin. These mountains run in several parallel chains due east and west, terminating towards Djin-ho, in the bare hills already mentioned. Two Taranchis previously sent back to Djin-ho by Dr. Regel now rejoined the party, reporting that couriers had been sent from Shi-ho to try and discover the whereabouts of the Russians, but had of course been unsuccessful, never having left the caravan road.

On the 16th June they descended to the lower tree belt; and here, hidden by sandstone cliffs, they came upon a lovely lake, called by Mongols Koko-nor, or the "Green Lake," and held in great veneration, the Wangs or Khans of the Khoshotes visiting it to pray and offer up sacrifices.

Continuing in a southerly direction, across a wooded slaty ridge, they arrived at another lateral defile of the Djin, called Bainamun. Hence they could see the whole course of this river, intersecting the plain from east to west, and bounded by mountains on the south. After climbing some more steep spurs, particularly arduous for the camels, the travellers arrived at the end of their day's march, on the bank of the wild, broad stream of the Djin. Here they encamped for the night, and the following day crossed the river by a bridge which they had first to repair. Yet more difficult was the crossing, on the 19th June, of a second branch of the Djin, the Tsagan-ussu, or "White Water," called lower down its course the Tsagan-tungeh. Ascending by zigzags, they surmounted the steep granite wall on the opposite side of the ravine, having occasionally to lift the camels over huge blocks of rock obstructing the path. The descent lay over hillocky ground covered with argillaceous soil, partly cultivated by Torgutes. After crossing this, they again came to the Tsagan-ussu nearer its confluence with the Djin, and here, at a tarn, or small lake, in the mountains, they shot two kulans, and added them to their collection.*

On the 23rd June they moved towards the river Nilki. In a valley extending towards the east they came upon the encampment of a wealthy Torgute prince, the owner of 60 yurtas. Some few of these were gaily decorated, and badges were worn indicating official rank, the prince himself being attired in a velvet robe. The Torgutes show the utmost indifference to the advance of China, and pay little heed to her efforts to restore her influence over them. The Chinese resort to artifice to accomplish their ends, as for instance by sending "gigens," or living Buddhas, to work upon the religious feeling of their former subjects.

On the 25th June, the party moved to the Djunkur-daban Pass, on the west, formed by the river Ulatai, a tributary of the Borborogussun.

* Two specimens of the kulan shot by Prejevalsky in Mongolia are preserved at the museum of the Academy of Sciences in St. Petersburg.

On this pass, at an elevation of 10,000 feet, a rich Alpine flora was found by them. Beyond it they came upon an encampment of Chamars, as predatory in their habits as their kinsmen on the other side of Kuldja are peaceable and industrious.

On the 28th June they reached the river Nilki, a tributary of the Kash, and on the 1st July arrived at the first encampment on this river, and soon afterwards at the village of Nilki itself. Here Dr. Regel exchanged his camels for horses, the latter being far more useful in the mountains, and encamped his men while he started on a few days' visit to Kuldja to obtain all necessary supplies for prosecuting his journey.

Starting again from Kuldja on the 10th July, Dr. Regel returned to the Kash. As far as Mazar the district is highly cultivated by Taranchis, whose elder escorted the traveller to Nilki, and assisted him in procuring supplies of flour, horses, and sheep. This elder has another house, inhabited by his principal wife, at Ulatai, 20 miles beyond Nilki, up the Kash valley. It is the custom among Taranchis, Kirghiz, and Mongols for the men to purchase their wives, paying either in cattle or money, the women contributing yurta and clothes as their portion. In Taranchi houses the wives generally live together under one roof, each one, however, occupying separate apartments; but the wealthier Kirghiz give to each wife her separate yurta [felt tent], and supply her with money and cattle. With Mongols, on the other hand, wedlock is inexpensive. For instance, last year one of the Arbun-sumun tribe, having earned his first five rubles, stole a wife, and with his money bought a share in a horse and field sown with wheat, and for a house the newly married couple built themselves one of clay. The Arbun-sumun tribe, in the days of its prosperity, during the empire of the Dzungars, occupied Kashgaria and Turkistan as far west as Chimkend; now a valley on the Upper Kash is their last resort. Not far from the entrance to the defile of the Bargati are three sulphur springs, hitherto frequented only by natives, with a temperature of 105° Fahr.* A good road might without any particular difficulty be made to them from Kuldja.

On the 18th July the travellers reached the furthestmost Kalmuk encampments in this direction on the Horgol rivulet. Somewhat higher,

* The temperature, as taken by Colonel Matvéief and myself [E. D. Morgan] on the 16th July, 1880, was 122° Fahr. We both bathed, and Colonel Matvéief, who had been suffering from rheumatism in the shoulder brought on by fracture of the collar-bone, derived benefit from them. I can confirm, from personal observation, Dr. Regel's remark as to the facility for making a road to the upper valley of the Bargati from Kuldja. With the exception of one or two difficult places, and the last mile or two, where the path lies along ledges of rock overhanging the stream, no difficulties would have to be surmounted. When General Kaufmann visited the positions of the troops last summer, he drove in his carriage to Djirgantai, about 20 miles from the confluence of the Bargati with the Kash, and when I passed up in the same direction afterwards, the ambulance arbas of the cavalry division were stationed at this spot.

6000 to 7000 feet above sea-level, there opens out a rich valley with luxuriant vegetation, tall enough to cover not only a pedestrian but a man on horseback. But myriads of drone-bees and venomous flies produced great discomfort, the bites of the latter causing considerable swellings. Bridges too had to be thrown across the torrents which feed the Kash. To add to their difficulties the rainy season had begun, and while it lasted, Dr. Regel and his companions were continually in damp clothes, having often to clear for themselves a path through the dense forests. In this way they reached, on the 5th August, the confluence of the Kash with the Arislin, and here they found a Kalmuk who volunteered to guide them to the sources of the Kash. Proceeding up a tolerably easy road along this river, Dr. Regel noticed several heaps of stones with remains of Mongol sacrificial offerings. Mongols to this day are wont to pile up these heaps (*obo*) on the summits of passes, and every way-farer flings something on them, uttering a prayer at the same time.*

About 27 miles above the confluence of the Arislin, the Moutchgéto falls noisily into the Kash. As none of his people would attempt to cross it, Dr. Regel himself, with one Kashgari, forded it on horseback and soon found a spot suitable for bridging. From this place, accompanied only by the guide, he ascended to the Moutchgéto Pass. This river flows from the north from glaciers which fill the whole of its upper valley, their extent and unusual heavy snowfalls rendering the pass impracticable, at all events for that year.

From the summit of one of the peaks Dr. Regel obtained a view of a *mer de glace* stretching from east to west. From this point in about E. long. 85° and N. lat. $43^{\circ} 30'$, the party had to turn back in order to discover the pass of Aristan-daban, which lies in a southerly direction up the valley of a river of that name, across the Arshan hills, and leads to the valley of the Upper Kungès and to the Lesser Yulduz. But before leaving the elevated region in which they were then, Dr. Regel wished to discover the sources of the Kash in some lofty mountains, and accordingly directed his march thither. At a height of 10,000 feet he found a warm spring of perfectly sweet water. Near it he shot a rare species of bear, of small size, with white throat and upturned snout. At last he arrived at a flat, elevated region, surrounded by waterfalls. Here was the glacier which gives birth to the Kash and at the same time guards the approach to a giant mountain 15,000 feet high. Here too, at an elevation of 11,000 to 12,000 feet above sea-level, an abundant Alpine

* Another custom I have noticed near Mongol encampments has been a light rope stretched across the path, supported on two poles or sticks stuck into the ground; suspended on the rope are a row of sheeps' blade-bones, covered with texts or prayers written by the lamas. In passing under these singular archways, which usually mark the entrance and egress of the Kalmuk encampments, the rider checks his horse, takes a blade-bone from the line, reads or appears to read the inscription, returns it to its place on the rope, and plucks a few hairs from his horse's mane, tying these in a knot by the side of the blade-bone.

flora clothed the slopes of the mountains. But Dr. Regel's enjoyment of this scene was brief, for speedily a cold rain began to fall, and this turning to snow soon covered the ground with a layer three inches in depth. It was not without considerable difficulty that they succeeded in crossing the swollen torrents as they made their way to the confluence of the Aristan with the Kash. Following it to its source, their progress was again stopped by large glaciers, an unusual occurrence, for in ordinary years ice does not generally lie here. This would have necessitated their turning back, had not Dr. Regel accidentally discovered, on the 5th August, a pass which the guide had apparently not wished to show, it being often used as a means of escape by robbers. This pass is only 10,000 feet high, and its slope towards the Kungès is even much richer in vegetation than on the Kash.

Hence, by a comparatively easy road, they turned towards the east. On the 11th August, while crossing the Odon-kur Pass leading into the Kungès valley, the travellers were overtaken by a violent snowstorm. Snow fell to the depth of two feet, and two of their horses perished. At length, on the 14th August, they crossed a pass into the Lesser Yulduz, halting on the 15th at the confluence of the Shanchagai [? Tsabtsagai] and Sagustai at a height of 9300 feet. Both men and horses were by this time exhausted with their efforts, and Dr. Regel decided on sending six of his men, all his collections, and nineteen horses back to Kuldja, whilst he himself with six of his best men started for Turfan in an easterly direction. Meanwhile the snow thawed and the horses could find pasturage. After marching 40 miles the travellers entered a narrow swampy valley, leading to the elevated plateau of Algoi and Chalgoi, at a height of 9000 to 10,000 feet, absolutely bare of tree and shrub, and so destitute of fuel that the party found it necessary to break up their boxes in order to kindle a fire and make tea; as to cooking meat, it was entirely out of the question. The thermometer stood at night at 52° Fahr. On the 20th August Dr. Regel and his party gained the first Torgute encampments, and the first signs of settled life they had seen for two months. Here they were received most hospitably and pressed to remain, but suspecting that the ulterior design was to entice them nearer to the Chinese, Dr. Regel, for the sake of appearances, accepted their invitation to visit their chief religious encampment, but instead of proceeding thither he resumed his journey early on the morning of the 22nd August, arriving, after a day's march of about 40 miles, at the eastern channels of the Shanchagai, opposite the Chinese town of Sén-tsien.

The following day the party crossed a pass to Algoi, where, at a height of 10,000 feet, they came upon a lovely Alpine lake. Only a few feet higher glaciers are visible, across which lies one road to Urumtsi. Proceeding in an easterly direction along the valley of Algoi, margined on the south by a chain of lofty snowy mountains, at about 110 miles

from the Torgute encampment mentioned above, they arrived at the mouth of the Chamgai, where an ancient Dzungarian fortress stands, and at length, on the 22nd September, entered the Taranchi stronghold of Turfan.

This former capital of the empire of the Uighurs maintained its independence till the conquest of Kuldja by the Chinese. Its Taranchi inhabitants received Dr. Regel and his companions cordially; not so the Chinese, however, who demanded their passports and were greatly alarmed at their arrival. They subsequently learned that fifty soldiers were sent from Kara-shahr in pursuit of them, in order to induce Dr. Regel to turn back; they, however, did not succeed in overtaking him. He was taken before the Chinese commandant, by whose order the travellers were well lodged and supplied with provisions. All their movements, however, were subjected to strict espionage until Dr. Regel's liberality weakened this.

The city of Turfan stands on a barren plain, and is supplied with water by subterranean aqueducts. So great is the heat that the inhabitants seek shelter from it in subterranean passages excavated alongside the aqueducts, and without artificial irrigation agriculture is impossible; by means of it, however, good crops are raised. There are two fortresses bearing the name of Turfan; the Taranchi one built by Yakub-beg (late Amir of Kashgar) and the Chinese one about a mile to the east of it, the population numbering altogether scarcely over three thousand. East of the Chinese fortress again are the ruins of old Turfan. Here a handsome minaret and numerous mortuary chapels are still preserved.

Dr. Regel lost no time in applying for the necessary documents to enable him to return by way of Lob-nor and Kashgar to Kuldja. The Chinese, however, detained him for five weeks, beguiling him with promises alone and taking his horses from him. At last, on the 1st November, they made it known to him that documents enabling him to return direct to Shi-ho would be shortly prepared for his use, and at the same time they returned his horses much reduced in flesh by insufficient food. Before taking his departure from Turfan Dr. Regel made some excursions in its neighbourhood with the permission of the Chinese. He appears to have been much struck with the brilliant effects of colour at Turfan, heightened as these are by a singularly clear blue atmosphere, so that walls and flat roofs even of clay houses glow with the richest tints.

The Imam of the Taranchis arranged an entertainment in honour of the traveller, during which women and girls danced to the music of guitars and tambourines, moving their arms up and down in a monotonous way. On his return, the Chinese pressed Dr. Regel to take his departure. But before leaving he was desirous of visiting ancient Turfan, having heard of its ruins, for the modern town, only 150 years old, affords no key to its past greatness. Accompanied only by a Kirghiz guide, and eluding the vigilance of his guards, Dr. Regel started

for the oasis of Kara-hodja, standing in the midst of an unfruitful stony desert. Its houses are of a somewhat pretentious character. In most of them are looms and oil-presses, and the principal apartment is approached by a separate staircase. A mosque four hundred years old is remarkable for splendid mosaics in the Samarkand style, and good paintings. From this place Dr. Regel went 10 miles further to Mazar, a spot held by pilgrims to be superior in sanctity even to Mecca itself. Its houses and galleries are apparently fastened to the bare rock. Here too is a crypt built in the Samarkand style. After the usual ablutions incumbent on every traveller, the Imam, a descendant of the Hojas, who ruled in Kashgar during the last century, showed Dr. Regel all the curiosities, including banners with Sart and Dungan inscriptions, evincing altogether as friendly a disposition towards Europeans as hostility to the Chinese. On his way back to Turfan Dr. Regel explored the extensive ruins which, in his opinion, mark the site of ancient Turfan destroyed 400 years back. Judging from the extent of these ruins the city must have been a very large one. The old walls, of immense thickness, with bastions, gateways, and subterranean galleries, may to this day be traced. Among the ruins he found broken bits of Chinese pottery, and Buddhist idols showing grandeur of design, although made of nothing better than clay and straw.

On arrival at Turfan, Dr. Regel found the Chinese commandant in a state of great perturbation, as he considered the whole expedition to the shrine most dangerous. The guards who allowed him to depart were sentenced to be hanged, and were already undergoing that barbarous Chinese punishment of being suspended by the neck in cages, and their execution, had not Dr. Regel returned, would certainly have taken place. In spite of orders to leave immediately, he tarried one more day, and obtained the release of the incarcerated victims of the commandant's wrath; and the next day, 9th November, they followed the Russians into Russian territory, to escape that fate which it seemed would still have been in store for them after Dr. Regel's departure.

On the return march, the travellers visited the town of Toksun, consisting of a small fortress built by Yakub-beg and a bazaar, mostly frequented by Dungans. The cultivation of cotton and industry are better developed here than at Turfan. Below Toksun a large salt lake, extending many miles to the east, receives the drainage of the country.

In a violent storm of wind and piercing cold the travellers, on the 12th November, crossed the Daban-shan Pass, only 4000 feet above sea-level, halting at its foot at the little town of this name. North of it rises the triple-headed Bogdo-ola mountain, rearing majestically to a height of 14,000 feet. The Dungan inhabitants of the Daban-shan valley welcomed the Russians warmly. Neither windows nor doors of their houses are ever closed, and the windows are rarely even papered over.

On the 14th November they continued their journey in a westerly direc-

tion, halting for the night at Lake Aidin-kul ("Horses' Lake"). On its shore are two stones of an early heathen epoch, carved with human faces, and before these the Dungans say their prayers. On the 15th November they arrived at Urumtsi, situate outside the mountains, north of the south-eastern spurs of the Iren-Habirgan [Borohoro] Range. The view of this town, with its Chinese towers and gates, is magnificent from a distance; but inside, between the first and second walls, are nothing but ruins. By the side of it stands a fortress, built by Yakub-beg. The population of the town has been estimated at 30,000, but this is probably twice the actual number of inhabitants. The bazaar-street reaches for upwards of a mile, with some well-built shops, at which the best Chinese wares may be purchased. Even rare porcelain vases and painted glass may here be found. Russian merchandise, on the other hand, such as candles, cloth, &c., is as scarce as it is at Turfan.

Although warned beforehand of their intended visit, the governor of Urumtsi forbade Dr. Regel and his companions from going beyond the precincts of the police buildings, in which a criminal was suspended by the neck in a cage, but in such a way that his feet touched the floor. It was a most troublesome business to obtain an official document for a lodging, or even the necessary provisions. The courtyard of the house they occupied was easy of access to all; not a door would close, and the position of the Russians became almost unendurable when a mob of several thousand forced their way in to have a sight of them, inspect their things, and touch them. Against such a crowd, composed for the most part of thieves and murderers, the guard assigned for their protection by the authorities was inadequate. Many of these deported criminals are liable to be taken for military service in case of war, although, as Dr. Regel observed at Turfan, their conduct is outrageous, and they break into the houses of the Taranchis, steal the food from their tables, and beat their women and children. Not a man belonging to the oppressed races dares retaliate in the slightest degree for the acts of such scoundrels, for fear of exposing himself, his family, and even his witnesses to capital punishment.

On the 17th November Dr. Regel started for Sendji. This town is inhabited by Dungans, stands on the plain, and contains some handsome shrines and tombs. In its neighbourhood he saw the ruins of a large city, similar in character to those of the ancient renowned Turfan. On the road to Manass they saw frequent villages and stations, not badly arranged for the comfort of travellers. The apartments of the Chinese are decorated with furniture and pictures, but here their civilisation ends, the only other adjuncts to their wants are the opium-smoking apparatus and three wives. Should he light upon objects of European taste and luxury, the Chinese is at a loss how to use them. Thus, Dr. Regel saw a Chinese who was continually wearing six watches, all of which kept bad time. He found the Mahommedans far

better acquainted with telegraphy, railroads, &c., whilst the Chinese tries to impose upon the European with false tales of his *tsian-tsiun's* (general's) troops.

At Manass our travellers came upon a curious illustration of Chinese justice. In front of the gates were exhibited the heads of two Sarts. A few days before, the Chinese, or Dungans, killed two Sarts in the street. By way of exacting a penalty for this murder two more were led to execution.

The traffic in Dungan children between Manass and Turfan is large, and Dr. Regel even was offered some of them at Turfan.

On the 26th November the travellers again arrived at Shi-ho, where the *tsian-tsiun* detained them by various artifices. On the 5th December Dr. Regel decided to start for Sigashu, where he overtook his men who had been sent on before. As frequently is the case in China, the wind suddenly changed: a brilliant convoy, comprising the son of the *tsian-tsiun*, escorted the travellers with flags and music to Djin-ho, but on approaching the Russian frontier, to the north of the Borborogussun valley, the whole Chinese escort dispersed, as a report had spread that a marauding band of Dungans was approaching, and Dr. Regel and his six servants were left to beat off the attack in the best way they could. In this, fortunately, they were successful, and on the 24th December returned in safety to Kuldja.

Recent Explorations in Mashuna-land. By F. C. SELOUS.

I SEND you a short account of a journey which I made with Mr. J. S. Jameson last year to the junction of the Umfuli and Umnyati rivers, in North-Eastern Mashuna-land, which by my reckoning is situated just about 200 miles slightly to the east of north from Inyati, the most northerly mission station in the Matabele country, and 100 miles to the south-west of the deserted Portuguese town of Zumbo, on the Zambesi.

On the 24th of July, 1880, Mr. J. S. Jameson and myself left our waggons, which were standing on the banks of the Umfuli river (not far from the spot marked Constitution Hill on Mr. Baines's map), and started on foot, on a trip into the "fly" infested country to the north of our encampment.

A four hours' walk through an alternation of open forests for the most part free from underwood, and broad grassy valleys, brought us to the banks of a fine clear stream, a tributary of the Umfuli, which ran at the foot of a hill known to the Kafirs as "Intaba go Umbundwan." As we still had our dinner to shoot, we went no further than this the first day, but spent the afternoon in search of game. We shot an oribi antelope and a reedbuck. The hill which I have mentioned above is