

REPORT

ON

THE GARTOK EXPEDITION

INCLUDING THE

**BRAHMAPUTRA, SUTLEJ, AND INDUS VALLEYS, AND THAT PORTION OF
TIBET WHICH LIES TO THE WEST OF GYANTSE.**

1904-1905.

BY

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PREFACE.

A detailed account of the road followed, and minor and military details of the forts, fords, ferries and bridges, will be found in the military report to be published by the Intelligence Branch, Quartermaster General's Department, Simla, which also includes reports on the stages and changing places, transport, supplies and accommodation available, distances, and all routes leading into Western Tibet from India.

Lieutenant F. M. Bailey, 32nd Pioneers, who accompanied the Gartok expedition, has supplied much of the data for the Chapter on Trade.

INDEX.

	PAGE(s)
1. Events leading up to the despatch of the expedition	1
2. Composition of the expedition	2
3. Object	2
4. General description of the route followed, and important incidents connected therewith ; also a detailed account of the larger towns	3—9
5. Weather report with chart	9—11
6. Lakes	11—12
7. Population	12—13
8. Government of Tibet and important personages met with on the road	13—15
9. Health of the inhabitants of the country	15
10. Obstacles to trade	15—16
11. Other British subjects entering Tibet besides traders, with suggestions	16—17
12. Missions	18
13. Coinage with suggestions	18—19
14. A general geographical description of Tibet west of Shigatse, with remarks	19—20
15. Trade. Exports and imports of Western Tibet	20—23
16. Trade marts	23—26
17. Trade routes into Western Tibet with comparisons and suggestions	26—27
18. Post and Telegraph distances to Gartok from Simla by various routes	27—28

APPENDIX.

Translation of the Treaty of Lhasa	29—30
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REPORT

ON

THE GARTOK EXPEDITION

FOR THE YEAR

1904-1905.

Events leading up to the despatch of the expedition.

The Tibetans having for many years neglected to observe the treaty signed at Darjeeling in 1890, the Indian Government in 1903 despatched a Mission to Khambajong, a place within the Tibetan border, and a suitable spot for the discussion of frontier matters. As the Tibetan Government still proved obdurate, after a halt of many months the Mission returned, and entered Tibet by another route, occupying the Chumbi valley on the way and finally halting at Tuna. Three months were here spent without result. In April 1904, the Mission with a small escort advanced to Gyantse, twice meeting with serious opposition on the road. At Gyantse Colonel F. E. Young-husband, C.I.E., the British Commissioner, again tried to impress upon the Tibetans the serious consequences which the attitude they persisted in maintaining might entail on them. Any chance of a peaceable conclusion was however abruptly brought to an end, by a sudden attack three weeks later, on the houses occupied by the Mission. A strong force was thereupon organised by general Macdonald, C.B., in the Chumbi valley, which in July relieved the Mission and captured Gyantse Dzong.

An advance to Lhasa, the seat of the Tibetan Government, was then ordered, the Brahmaputra was successfully crossed, and Lhasa entered on 3rd of August.

The occupation of the capital of Tibet brought the Tibetans to reason, and the treaty between England and Tibet was formally signed at the Pota-la, the residence of the fugitive Delai Lama, on 5th September 1904.

In Article 5 of the treaty it had been agreed that trade marts should be opened at Gyantse, Yatung and Gartok. The two former lying as they do on the line of advance to Lhasa were well known, but of Gartok our knowledge was limited in the extreme. No European had ever visited the place, and although its position had been fairly accurately determined by the famous explorer Pandit Nain Singh and his companions, their description of the place left much to the imagination. It therefore became a matter of importance, that before finally settling on this spot as a trade mart, all possible information should be obtained as to its suitability for the purpose, and that the routes to and from the various passes on our frontier should be properly surveyed, so that future proposals for improving trade roads should be based on accurate information.

As the attitude of the Tibetans remained friendly, it was determined to take advantage of this unique opportunity of opening the trade mart at once, and also of adding to our geographical knowledge of the little known country beyond the Himalayas.

Composition of the expedition.

Definite orders for the formation and despatch of the expedition were received at the end of September, and as the winter was fast approaching it was necessary to set out as soon as possible.

Gyantse was chosen as the most convenient place at which to collect transport and supplies.

The personnel of the expedition was as follows:—

Captain C. G. Rawling of the Somersetshire Light Infantry, who had made two previous journeys in Western Tibet, was appointed to take charge of the party, and to make necessary political arrangements for the opening of Gartok to trade.

He was assisted by Lieutenant F. M. Bailey, 32nd Pioneers, who had served with the Mounted Infantry in the Tibet expedition, and whose knowledge of the language was likely to prove useful.

Owing to the importance attached by the Government of India, of taking every opportunity of surveying the country bordering on the frontiers of the empire, a strong band of surveyors accompanied the expedition under Captain C. H. D. Ryder, R.E. Captain Ryder had had much previous experience in trans-frontier work, for besides having had charge of the survey party of the Tibet Mission, he had made two exploring expeditions in Western China and Eastern Tibet.

He was assisted by Captain H. Wood, R.E., whose recent trip to Nepal, when he observed many of the great Himalayan snow peaks, rendered his services peculiarly useful, and by Surveyor Ram Singh of the Survey of India, a native of great experience in trans-frontier work.

Hospital Assistant Hira Singh who had been with the Tibet Mission since its inception, had medical care of the members of the expedition.

The nominal escort consisted of five riflemen belonging to the 8th Gurkhas, all of whom had been employed in the Mounted Infantry throughout the Tibet expedition.

The remainder of the party which numbered 34 in all was made up by two military surveyors, four survey khalassis, pony drivers and camp followers. As it was doubtful to what extent the assistance of the Tibetans might be relied on, it was important that with regard to transport and supplies we should be to some extent independent in the matter. Forty-three Tibetan ponies with Government saddles, and two months' supplies were consequently taken.

We were accompanied by an official appointed by the Tibetan Government, Ka Sang by name, who also carried with him a written permit, and orders sealed with the seals of the three great monasteries of Lhasa. Throughout the journey it was noticeable that on seeing these seals the inhabitants showed the greatest respect to the stamps which represented their Government.

A copy of the treaty was also prepared and sealed by the trade agent at Gyantse.

Object of the expedition.

1. The primary object was to proceed to Gartok, and arrange matters there with the Garpons or Governors for the opening of a trade mart.

2. To survey as much of the country as was possible in the limited time at our disposal.

3. To report on the different trade centres, routes to the frontier of India, and the general possibilities of trade, and to find out the best means of fostering this trade.

4. To impress upon the people the fact that we had entered the country with peaceful motives, that it was to their benefit to assist us, and that Tibet was no longer a country hidden and closed to foreigners.

The expedition left Gyantse on October 10th, 1904.

A general description of the journey and more important towns, passed on the road.

Shigatse, the commercial centre of Tibet, is distant from Gyantse four marches or fifty-seven miles. The road which is nothing but a collection of goat tracks follows the left bank of the Nyang Chu. The country for the whole distance is well cultivated and irrigated. The soil is extremely rich and grows heavy crops of bearded barley, wheat and peas. Every available foot of ground has been turned to account by the inhabitants, who have in addition planted groves of trees round their houses and in the open places between the fields. This valley is said to be one of the richest in Tibet, and this in a way accounts for the great number of monasteries and nunneries to be seen in all the neighbouring ravines. The inhabitants of the valley are almost entirely dependent on agriculture for their subsistence number about 13,000. There are only two villages of any considerable size, Donz-tse and Nu-pu-chön-dzo. The former is of considerable importance, as before the advent of the Tibet Mission, it was the head-quarters of the Southern Tibet Army, and consequently contained large supplies of grain, fodder and arms. Here the Depon, or General, used to reside. The lamasery, which as usual is built on a spur overlooking the village, formerly contained an incarnation of Buddha, and even at the present day the head Abbott is treated with great respect. It was at this place, that the Pundit Nain Singh was so hospitably entertained fifty years ago. The majority of the houses in the valley are either separate, or grouped into small hamlets of three or four buildings. They are all built of mud bricks or stone, are whitewashed and have a prosperous appearance. The outhouses are well filled with grain and bhoosa, while ponies, donkeys and cows are to be seen grazing between or upon the surrounding fields. The people are well fed and contented, and though the fighting had only recently ceased they showed no fear of Europeans. The Nyang Chu, a river of considerable size, flows down the centre of the valley. Its never failing waters, which are fully utilized for irrigation, render the people independent of the rainfall and secure from all fear of famine.

Thirty miles north-west of Gyantse and in the centre of valley, which is here not over three miles in width, rises a great rock to a height of 150 feet, on the summit of which stands Pon-nang Dzong. This fort is in a good state of repair. (Intelligence Report.)

The Nyang Chu is crossed by two bridges, one two miles below Gyantse and the other at Shigatse, both of which are in good condition, and capable of supporting any weight likely to be brought upon them.

Nine miles to the south of Shigatse up a branch valley to the west, and hidden behind thick groves of trees, lies the monastery of Shalu, which is held in high esteem by the Tibetans. Here we were hospitably entertained by the monks, but were unable to see the incarnation, who had never seen Europeans, and was consequently too nervous to meet us.

Representations of the Trashi Lhumpo, Trashi Lama and Dzongpons, met us two miles from Shigatse and presented scarves of welcome to Captain O'Connor, C.I.E., Trade Agent at Gyantse. Tents had been pitched here, and after partaking of refreshments, we rode into Shigatse escorted by the Lamas. During the halt made at Shigatse both parties stayed in the house of the chief noble, which together with the garden, had been set aside for our use.

The ground floor of the house was given over to the use of Captain Steen, I.M.S., who converted it into an operating room and dispensary.

Here the final preparations for the Gartok expedition were made. We left in two parties on the 16th and 18th October respectively.

Shigatse, the commercial centre of Tibet and the second largest town in the country, is situated four miles to the south of the junction of the Nyang Chu and Brahmaputra rivers. It is divided into three distinct parts; the fort, the town, and monastery.

The Dzong. This immense fort is situated on a promontory of the rocky range lying to the west. The height of the rock upon which the fort is built, is about 100 feet above the plain. From the rock rise the walls of the

fort to a height of nearly 250 feet. In length it is about 900 feet and in width 270 feet. The fort is built of dressed stone and is entered by two doors, one situated at its western end, and the other at its south-eastern extremity. As seen from the outside the whole building has the appearance of great strength, but when examined from the interior it is seen to be in an advanced state of decay. Here reside the two Dzungpons, who state that the garrison consists of 1,000 Tibetan soldiers, but at the time of our visit, neither soldiers nor guns were visible. Six hundred yards to the south of the Dzung is the Chinese enclosure, where 200 Chinese soldiers are reported to be quartered, but again no soldiers, or at any rate none in uniform, were to be seen. The enclosure is surrounded by four mud and stone walls 30 feet high. (Intelligence Report.)

The town of Shigatse lies around the north, east, and south faces of the fort. It is divided into several parts, separated from one another by open spaces and stagnant pools of water. To the east of the town, and distant 600 yards, and on the left bank of the Nyang Chu, stands the summer palace of the Trashi Lama. The buildings are but little superior to those to be seen in the town. The houses are of mud and stone, and whitewashed, trees surround the buildings, the whole being enclosed by a substantial seven-foot wall.

In this enclosure live the Trashi Lama (see personages) the Prime Minister, the heads of the local administration, the relations of the Trashi Lama, and their respective retainers. The reception rooms of the Trashi Lama, though once rich and beautiful, are now faded and worn, and are unsuitable to one who in the opinion of the Tibetans is more sacred than the Delai Lama, and who is therefore the religious head of the great Buddhist faith.

The monastery, known as the Trashi Lhumpo, though not the biggest Lamasery in Tibet, is considered to be the most beautiful, and is the most sacred. It is situated on the southern slope of a rocky range one mile south-west of the Dzung. The buildings, all of which are whitewashed, are of stone, and are substantially constructed. The streets are narrow but clean. In the centre of the buildings rise the five tombs of the previous Trashi Lamas. The roofs are gilded, while the interiors are of great beauty and richness. These rooms are of great intrinsic value as well as beauty, for everything is of gold, and in most cases of pure and solid gold. Vases, ornaments and figures are of the precious metal, the whole being thickly decorated with turquoises, and in less profusion with other precious stones. Other buildings, now in course of erection, testify to the great wealth of this monastery in which four thousand five hundred monks are stated to reside. The influence of the Trashi Lhumpo is considerable as its rule extends over the whole country from Shigatse to Sa-ka Dzung to the west, the country beyond that again receiving orders from Lhasa direct.

The population of Shigatse, exclusive of the monks, numbers about 18,000. Order is well kept, and the people appear to be contented and comfortably off. The inhabitants consist of Tibetans, Chinese, Nepalese and Kashmiris, but the three latter appear to do most of the trading. The surrounding country has an extremely rich soil, and as the town is well situated, the place in time should develop into one of the chief trading centres of Asia.

From Shigatse westward the main trading route lies along the open valley to the south of the Tsangpo, but separated from it by a range of rocky hills. The valley is broad and open, and is practically level. The soil, though good, is not equal to that in the Nyang Chu valley, and consequently is not so thickly populated or cultivated. Grazing to a great extent takes the place of cultivation, and as grass grows freely, immense herds of cows, goats and sheep here roam all the year round. Ponies, donkeys and yaks are also very numerous. After 45 miles of this open pastoral country, the valley changes in character, becoming stonier and more barren, and as a consequence less populated and cultivated. All the villages between Shigatse and Tra-shi-gang supplied contingents for the late war, the men of the latter place losing heavily at the Red Idol Gorge; nevertheless they showed us no enmity, but on the contrary did all in their power to make us comfortable. Fifty-seven miles from Shigatse the road touches the right bank of the Brahmaputra or Tsangpo. Up to here the so-called road had consisted of numerous tracks which had been made by cattle, but from here onward it had been built by the inhabitants, having been either cut from the mountain

side or built up from the hollows. Though the going is in places rough, yet the path is of sufficient width to afford no impediment to laden animals. The Tsangpo is spanned every ten miles or so by iron chain suspension bridges. These apparently are of considerable age as none of the inhabitants know when they were built, but they are nevertheless in good condition. The links are of half to three-fourth inch iron and were locally forged. From the chains hangs a network of rope, along the centre of which passengers pass. Animals cannot be taken over these bridges, but are either swam across the river or carried across in the ferry boats. (For detail of ferries and bridges see Intelligence Report.) At numerous places where the side valleys meet the Tsangpo are small villages or groups of houses, and at one of these places stands the monastery of Pin-dzo-ling.

Originally the position was chosen as the site for the Lamasery on account of the inaccessibility of the rocky ridge to the south, but as the population grew and safety was assured, the buildings gradually spread over the level ground at the base, and the houses on the rock have been allowed to decay. This place which now contains some 200 monks, is nevertheless surrounded by a strongly built and fortified wall, with flanking towers and a pathway along the top. There is no cultivation, and the monks are supplied with food, etc., from Trashi Lhumpo and the villages near by.

Eighty-two miles from Shigatse the valley of the Tsangpo opens out into a plain some four or five miles in width.

Here likewise the river makes a bend, and runs from now onward for 160 miles due west and east. In the centre of the plain, and on the right bank of the Brahmaputra, rises a rock having perpendicular sides. On the summit of this mass of limestone stands the fort of Lhatse.

Lartse, like most places of importance in Tibet, consists of a fort, Lamasery and village.

The fort which is built of stone, stands on the summit of the rock, its roof being about 270 feet above the plain. As the ridge is narrow, and the rock precipitous, the outer walls of the buildings rest on ledges far down the sides.

The whole, though imposing in appearance, is badly designed and poorly constructed. There are entrances both on the river and the monastery sides. Here are stationed two Dzungpons, one of whom at the time of our visit was absent in Lhasa, his place being taken by a substitute.

To the south-east and at the foot of the rock, surrounded by high mud brick walls, lie the monastery buildings, in the centre of which is the temple itself. The fort and monastery are attached to one another by screened stairways. In the buildings, which are closely packed inside the wall, live 120 monks.

The village lies still further to the east of the monastery, but is separated from it by 50 yards of open ground. The inhabitants number over one thousand, and exist by agriculture and the raising of cattle and sheep. The village is extremely dirty and the people suffer much from diseases of the eye.

The soil of the north-eastern half of the valley is rich and fertile, but the western half is stony, and produces scanty crops.

The law-abiding character of the Tibetans is clearly apparent from the fact that Lhatse is governed by two dzongpons, one of whom is generally away, two soldiers and no police.

From here the expedition advanced in two parties, with the object of surveying the unknown portion of the Brahmaputra, and at the same time mapping with greater accuracy the main trade road lying to the north.

The Tsangpo, though at this season of the year at low water, still remained of considerable size, becoming more rapid the nearer its sources were approached. The country through which it passed varied considerably in character. At times it rushed through narrow gorges, the cliffs rising precipitately from the river, which at others it slowly wound its way through open and level plains. The main pathway followed the right bank, though at places another path appeared on the opposite side of the river. The path had usually a width of from 6 to 8 feet; at times when passing round a rocky

spur, narrowing to as little as four feet; and here the baggage animals had to be unladen, and the stores carried over by coolies. The stretches of open country traversed were in places well populated and cultivated, but there was plenty of spare ground, which, if taken into cultivation, would support a large increase in the population. Many ruins of old villages were to be seen, noticeably at Ru-jé; a result, so the people said, of the war with Nepal. Beyond Ru-jé the Tsangpo rushes through gorges, the sides of which are too steep to allow of animals continuing in this direction; consequently a pathway has been made for three marches to the south, which crosses the fertile plain of Dingri, the water from which flows into the Ganges. From here fine views of Everest can be obtained, the great mountain standing out clear and distinct from any other peaks. Villages still continue to be numerous, but cultivation is more scanty, gradually giving place to pasturage. At *Yen-ju* all cultivation ceases, and from here onward the wants of the inhabitants are supplied from other and lower lying places, the grain, etc., being transported on the backs of yaks. As a result yaks are now plentiful, and are to be seen in all the valleys and side ravines, herds of 2,000 being common. As the country rises, grass grows still more freely, and is of the fine and nutritious variety, and here immense herds of goats and sheep graze all the year round. A flock of 2,000 to 3,000 sheep requires but one shepherd to tend it. The sheep are large and of a good stamp, the wool they grow being the longest and some of the finest in the world. At these altitudes these goats grow no *pashm*, this only being found on the goats of the highlands of Western Tibet.

The market price of these sheep and goats is from 12 annas to Re. 1 a piece.

To the west of the furthest cultivated land, the valley of the Brahmaputra widens considerably, and the soil becomes more sandy. At places the plain is filled with immense sand dunes, between which, as a rule, lie pools of fresh water.

At Sa-ka Dzong the two parties re-united, the northern party having followed the ordinary trade route the whole way. This upper road appears to be but little better than that which follows the Tsangpo. It is continually rising and falling, and is in places extremely rough. Villages and cultivation were scarcer, and ceased at an earlier point in the journey.

Sa-ka Dzong, being only a fort in name, is a straggling village of some 20 houses. Here live two dzongpons, who rule a large tract of country though a scanty population.

Once again the expedition divided, re-uniting at Tadam six days later.

The country now opened out, the valleys became broader and more level, the mountains lower and more rounded. Yaks, ponies, sheep and goats were as plentiful as before, but the human beings scarcer. There being no wood for building purposes, houses were non-existent, tents of yaks' hair taking their places. Game was plentiful, antelope, ovis ammon, kiang, goat and wolves being seen daily.

On 26th November the Ma-yum La 16,400 feet in height was crossed. Here and in the neighbouring ravines, the Brahmaputra has its sources. The pass proved to be an easy one. Beyond and 1,000 feet below the summit of the pass, contained in its own basin, lay the salt lake of Gün-chu-tso. There is from this lake no outflow; and as far as it is possible to tell, there never has been one. To the west the country rises again, and then falls gently to the sacred lake of Manasarowar, where to the south rises Mémo, and to the north the holy mountain known to the Hindus of India as Kailas peak. Beyond again, and lying roughly north and south, is Rakas Tal. (For description of these lakes see Lakes.)

Beyond the low ridge to the south of Manasarowar, lies the town of Pu-rang situated in an open plain, on the banks of the Gogra river which is a tributary of the Ganges. To the north, and on the far side of Kailas peak the Indus is said to rise; while close by Rakas Tal are the sources of the Sutlej.

Careful enquiries were made about the reported journey to these parts of Mr. Savage Landor some few years ago. Officials and inhabitants unanimously

declared that no European had entered the country within recent times and laughed the story to scorn. Mr. Savage Landor's report on the country bears no resemblance to the actual facts, and the truth of his story is open to grave doubt. Pu-rang, or Taklakot as it is known to the natives of India, is situated in a fertile valley on the upper waters of the Gogra, a tributary of the Ganges. It is stated to be eight marches distant from Almora. Pu-rang is said to consist of a small fort in which only one Dzongpon resides, a stone monastery containing forty monks, and a village of 100 houses. In addition 200 other buildings are dotted about in the plain, all of which have small patches of cultivation near by, from which barley is raised. It was here that Zorawar Singh's army, consisting of 6,000 Dogra troops, was annihilated by the Chinese and Tibetans in 1842.

Fears had been entertained that Jerka La, the pass into Gartok from the east, on account of its reported great height, would be closed by snow. The pass proved, however, to be an extremely easy one, the crest being only 15,000 feet high, and the ascent and descent easy.

Gartok was entered on 9th December.

The two Garpons or Governors had arrived here two days previous, having come from Gar Gunsu, distant about 40 miles to the north-east on the Leh road. Gartok consists of three substantially built houses and fourteen one room huts. Its local name is Gar Yarsa, and only Natives of India know it is Gartok. Gartok is only inhabited for about three months in the year, August, September and October. During these three months the Garpons here take up their residence in two of the houses, the third being reserved for any high officials passing through. Shepherds and traders from all parts collect at this time, and exchange their various goods and wares. Many of these merchants come from India bringing cloth, copper goods, and silver from Hindustan, and take back with them wool, *pashm* and gold (see trade).

These people come and go, but about 500 men are always to be found here during these months. Gartok, though of no importance in itself, is the official capital of Western Tibet, and here taxes, etc., are collected, and official business is transacted. Towards the end of October the different traders disperse, the place being shut up and deserted from the month of November. The Garpons return to their winter quarters of Gar Gunsu, where they remain for the following nine months. This winter place of residence consists of two houses where the Garpons live, one monastery containing six monks, and from 15 to 20 tents. At Gar Gunsu grows some scrub jungle, but at Gartok there is no wood of any description and Yakdung is used as a substitute. Soon after our arrival, a complementary visit was paid to us by the Governors, and on the following morning we had an official meeting.

The Garpons were attended by all their followers. The treaty of Lhasa was first of all read to them in the hearing of all; after which the permit was read. A speech which had previously been prepared was afterwards read, by the Tibetan official who had accompanied us from Lhasa. This latter paper explained more fully and in simpler language what was required of these Garpons, pointing out the advantages conferred on them by different clauses of the treaty. It also informed them of the coming of a trade Agent, who would take up his quarters at Gartok, and whom they should treat with every mark of respect. Presents were then exchanged, after which the servants being dismissed, various items of the treaty were discussed and explained in detail. They took no umbrage at any paragraph, and promised to send round at once to the different outposts with orders, that traders were to be allowed in and out of the country, and that all obstacles to trade were to be removed. The Garpons declared that they believed the copy of the treaty we had shown them was correct, but they also said, that no new or fresh orders had been sent to them from Lhasa. The building of a house at Gartok, they explained, was impossible at present, and in any case would be very expensive, for all wood has to be imported either from Leh, 18 marches distant; from Shipki, 11 marches; or from British India by one of the snow-covered passes. The construction of fresh roads or the improvement of the existing roads is also inadvisable at present, and should not be pressed upon the Libetan until a decision is arrived at, as to what roads are to be constructed on the Indian side of the

frontier. The Governors also pointed out that their roads would not, where the country is particularly rough, be very successful, for they own no implements with which to construct them.

The following day we left Gartok, crossing the Ayi La, two days later, in deep snow and in a blizzard.

The whole basin of the Sutlej river, from its source to the frontier of India, was visible, and was accurately mapped. This district had previously been a great lake, which had rapidly silted up, as the strata plainly proved. The overflow from the earliest times has been down the present Sutlej course, the valley of which has been rapidly enlarged by the great pressure of water from above. The soil is of mud and sand, and the strata perfectly horizontal. The valley can be crossed from north to south with the greatest ease, and at any spot, for the nullah beds are level and firm, but on account of the great number and depth of these ravines, it is extremely hard to move from east to west or *vice versa*. In many places these ravines have almost precipitous sides, with a drop of from 4,000 to 5,000 feet. A few tracks have been made by the passing backwards and forwards of men and yaks, but only with difficulty can these latter animals move, and at times their loads have to be carried over the worst places by men.

The harder soil contains great numbers of caves; and where the ground is level below, men have taken up their abode in these holes.

In all the promising spots small villages exist, and as the altitude is only from 12,000 to 13,000 feet, trees and grain are grown in the sheltered spots.

The valley of the Sutlej, considering the inhospitable nature of the country, is well populated. Villages are to be found every few miles, from its source to the frontiers of India. The largest of these places is Tö-ling, the ancient capital of the kings of Western Tibet. The old capital is situated on the summits of some immense cliffs, the only entrances being through subterranean passages. The town is now in ruins and is said to have been deserted about 400 years ago, after the Tibetans had suffered a defeat at the hands of some northern race. Since then three large monastic buildings and many dwellings have been built on the level ground above the river, where the ground is well cultivated.

Here now reside the head clergy of the country and the Chief Abbott of Western Tibet. Three miles up the Sutlej from Tö-ling, is a wooden cantilever and iron chain suspension bridge, which spans the river. Over this bridge, a portion of Zorawar Singh's army marched in 1842 when advancing on Pu-rang. Alexander the Great is said, according to Nain Singh, to have built it, but the inhabitants informed us that it was constructed about 400 years ago by the last king of Western Tibet.

Four marches from Gartok we met Thakur Jai Chand, late Registrar of Lahoul, who had been sent up as trade agent by the Government of India. He had several Kulu coolies with him, most of whom we took back with us, replacing them with yaks. I instructed Jai Chand to proceed to Gartok, and to spend his time until trade recommenced in making friends with the Governors and people, and getting completely into their confidence. As soon as trading began again, he was to travel from place to place with the merchants, making all enquiries as to trading possibilities and the requirements of the people, and to see whether any obstacles to trade exist. I gave him a letter of introduction to the Garpons of Gartok, and placed him in the care of one of the Governors' officials. Thakur Jai Chand was also given all the presents we still had with us. I have since heard that he reached Gar Gunsa safely on Christmas day, was well received, and is now settled there for the winter.

Shipki was reached on December 23rd; the frontier crossed on the following day; and Simla entered on January 11th, 1905, three months and one day from leaving Gyantse. The whole of the members of the expedition arrived in good health, there having been no sickness on the way, with the exception of two cases of roat bite.

I am of opinion that the expedition was attended with the best results, which will become more noticeable as time goes on. This was to a great extent due to the care with which the members and followers took, not to offend the susceptibility of the inhabitants. At the commencement of the journey the

people were nervous, but as we progressed, seeing that no harm was done to them, they welcomed the expedition everywhere. As far as time allowed, all sick brought to the camp were treated by the Hospital Assistant. The Tibetans have heard the treaty read, and have had it explained to them; they have also learnt that we take nothing by force, and that everything bought is immediately and freely paid for. The authorities have realised that their country is no longer a hidden mystery to foreigners; and also that the Indian Government has demonstrated its disregard for the powers of the Tibetans by sending so small a party into their midst; and above all by letting them clearly see that we come as friends, and that the benefits of trade and free intercourse will accrue to both nations equally. Forty thousand square miles of country were accurately surveyed by Captain Ryder and Captain Wood; the sources of the Brahmaputra and Sutlej rivers discovered; and the headwaters of other rivers defined, and many geographical problems solved.

A regular weekly post has been arranged for, between Gartok and Poo, on the Sutlej. The British Trade Agent has taken up his abode and duties at Gartok, and is in friendly relations with the Tibetan officials.

The total cost of the expedition was 12,000 rupees. I trust and believe the good relations with Western Tibet will continue. Whatever events may happen in the future, trade must increase, and the former exclusiveness of the Tibetans has ceased for ever.

Climate.

From the time of the opening of the passes, which usually takes place about the beginning of June, and from then till the middle of December, the weather may be described as perfect in all the southern, south-western and western districts of Tibet. Snow only falls during this period on the highest hills, and rain only in the month of August and the first half of September. The rainfall, however, even during these months is very slight, the ground obtaining most of its water from the melting of the snows on the surrounding hills. The atmosphere is dry, clear and bracing, and a strong wind blows from the west, south-west and south at all seasons of the year. This wind at times increases to a hurricane, which raises great clouds of dust from the shores of the lakes and from the sandy bed of the Tsangpo. As a guide, a detailed account of the weather and temperature for the months of October, November and December of 1904 is attached.

Date.	Place.	Temperature at 3 P.M.	Minimum at night.	Wind and clouds.
1904.				
10th October	Dongtse	61	30	Clear, calm.
11th "	Nu-pu-ohön-dzo	60	18	Clear. Light breeze at times from north.
12th "	Jorkye	58	22	Clear. Strong breeze from north-west.
13th "	Shigatse	59	30	Clear, calm.
14th "	"	65	29	Ditto.
15th "	"	64	20	Ditto.
16th "	"	62	28	Ditto.
17th "	"	58	31	Clouds Cumulo cirrus 6. Calm.
18th "	Kanjen Gompa	55	30	Clouds Nimbus 10. Rain all day. Wind, light south-west.
19th "	"	54	28	Clear, calm.
20th "	Shap-ge-ding	53	30	Ditto.
21st "	Tra-shi-gang	56	22	Clear. Wind, medium, south-west.
22nd "	Pin-dzo-ling	57	19	Ditto Ditto ditto.
23rd "	Chap-trang	56	16	Ditto Wind, strong, south-west.
24th "	Lhatse	55	17	Ditto Wind, strong in the afternoon, south-west.
25th "	"	47	17	Clear. Slight breeze, middle of day, south-west.

Date.	Place.	Temperature at 3 P.M.	Minimum at night.	Wind and clouds.
1904—contd.				
26th October	Cha-gar . . .	46	16	Clear. Slight haze 3 P.M. Midday, strong, south, south-west.
27th "	Tashu . . .	50	16	Clear, calm.
28th "	Lago . . .	45	18	Ditto.
29th "	Je-nung . . .	50	13	Clear. Wind light from south.
30th "	Pan-ting . . .	48	11	Clear, calm.
31st "	Ye . . .	46	14	Clear. Wind, light, south, south-west.
1st November	Kuda . . .	40	4	Clear, calm.
2nd "	Ku-ju . . .	42	-1	Clear. Wind, south, south-west gale.
3rd "	" . . .	40	0	Ditto Ditto ditto light.
4th "	Nag-du . . .	39	-3	Ditto Wind, light, south.
5th "	Le-lung . . .	43	-3	Ditto Ditto south-west.
6th "	Yen-ju . . .	38	-5	Clear, calm.
7th "	Phugsum . . .	40	...	Ditto.
8th "	Gya-tso . . .	41	4	Ditto.
9th "	Sa-ka Dzong . . .	38	-2	Clouds nimbus 5. Snow 4 P.M. Wind light, south-west.
10th "	" . . .	38	-2	Clouds cumulus 5. Calm.
11th "	Sar-nu . . .	34	...	Clouds nimbus 5. Wind, strong, south, south-west.
12th "	Nynk-ku . . .	34	-2	Clouds nimbus 8. Wind, strong, south, south-west.
13th "	Lak-chang . . .	32	3	Clouds nimbus 5, haze 3. Wind light, south-west.
14th "	Tra-dom . . .	28	-3	Clouds nimbus 10. Snow at intervals. Wind light, south-west.
15th "	" . . .	25	...	Clouds nimbus 6, cumulus 2. Regular snow. Wind strong.
16th "	" . . .	25	...	Thick mist morning, snow afternoon. Wind gale, south-west.
17th "	Dun-ju . . .	26	-11	Clear. Wind light, west, south-west.
18th "	So . . .	31	-13	Haze 10. Wind strong from east.
19th "	Dzing-ra . . .	26	-15	Morning clear, calm. Afternoon clouds cumulus 3. Wind strong, west, south-west.
20th "	Truk-sum . . .	29	-7	Clear, calm.
21st "	Neo . . .	24	-17	Clouds cumulus 3. Wind hurricane, south.
22nd "	Nak-chak . . .	24	-12	Clear, calm.
23rd "	Lak-tsang . . .	23	-19	Clouds nimbus 5. Wind strong, south.
24th "	Rajen . . .	12	-17	Clouds nimbus 6. Snow on hills. Wind light, south.
25th "	Tse-sum . . .	11	-14	Clear, wind strong, south-west. At night wind strong, east.
26th "	Lu-lung . . .	13	-16	Clear, wind light, west. At night wind strong, east.
27th "	Uk-rung . . .	22	-14	Slight, haze.
28th "	Nyuk Chu . . .	20	-11	Clear. Afternoon wind, strong, south-west.
29th "	Tok-chen . . .	21	-13	Clear. Wind, gale, south-west.
30th "	Le-gya . . .	26	-5	Ditto. Wind light, south-east. Gale all night from north-east.
1st December	Nak-luk-ru . . .	28	-16	Clear, calm.
2nd "	Barkha . . .	27	-14	Haze 6 calm. In afternoon wind strong, south.
3rd "	Shar-la . . .	28	-7	Clear, calm. In afternoon wind medium, south-west.
4th "	Trok-poh-shar . . .	29	-6	Clear, calm.
5th "	Misar . . .	28	-11	Ditto.
6th "	Gya-la-bum . . .	26	-15	Clear. Wind, light from east.
7th "	Par-obu . . .	29	-7	Ditto. Wind, light from south.

Date.	Place.	Temperature at 3 P.M.	Minimum at night.	Wind and clouds.
1904—concl'd.				
8th December	Nik-yu . . .	30	3	Clouds cumulus 2. Wind, gale, south-west.
9th "	Gartok . . .	28	6	Clouds nimbus 6. Wind, hurricane, south, south-west.
10th "	" . . .	27	2	Clouds nimbus 8. Wind, gale, south-west.
11th "	Na-ting-ting . . .	22	2	Clouds nimbus 10. Snow. Wind, gale, south-west.
12th "	Ayila-tea . . .	19	2	Clouds nimbus 10. Snow all day. Wind gale, south-west.
13th "	Dunkar . . .	22	5	Clouds nimbus 7. Snow night and day. Wind light, south-west.
14th "	Tü-ling . . .	28	6	Clouds nimbus 9. A little snow. Calm.
15th "	Ti-bu . . .	26	-7	Clouds nimbus 4. Calm.
16th "	Ky-ni-puk . . .	26	3	Snow fell lightly all night. Calm.
17th "	Op Chu . . .	26	7	Thick mist. Snow fell all night and day. Calm.
18th "	Luk . . .	25	-11	Snow in morning. Calm.
19th "	Nuk . . .	19	-7	Clear, calm.
20th "	Chang-dang . . .	16	-24	Clouds nimbus 8. Wind, light, west, clear and calm at night.
21st "	Mi-yang . . .	25	-7	Clear. Wind, medium, south-west.
22nd "	Tyak . . .	27	7	Ditto. Wind, light, south-west. Thick mist during night.
23rd "	Shipki . . .	27	8	Mist on hills.

Lakes.

Near to the sources of the three rivers, the Brahmaputra, the Indus, and the Sutlej, lie the three great lakes Gün-Chu-Tso, Manasarowar and Rakas Tal. These lakes are here described, more on account of the importance attached to them by the followers of the Hindu and Buddhist faiths and in order to solve some of the geographical problems as to their position, etc., than that they are of any value from a trading point of view. It is, however, probable that when the country is perfectly safe to travel in, and when roads from India have been constructed, a great increase will take place in the number of pilgrims visiting these parts, who will indirectly encourage trade and might even do a little trading at the same time.

Of these three lakes Gün-Chu-Tso is the most easterly. It lies roughly south-east and north-west and has an area of about 27 square miles. The waters are salt, but not to such an extent as to deposit any saline matter on its shores. The mountains to the south are precipitous and rocky, and rise almost sheer from the water's edge. The ground to the east is flat and boggy, and appears to have been once a part of the old lake. The grazing over this ground is good. The country to the north, for four or five miles, slopes gently upward, from the lake to the mountains. The soil is stony but rich, and grass is to be found in plenty. To the west the country rises more sharply, and being sandy is likewise more barren. The level of the lake which receives most of its waters from the south and east rises and falls according to the seasons of the year. There is no exit from the lake for the additional supply of water to escape from. The surface of the lake was at the end of November frozen over to a sufficient thickness to bear laden animals.

Manasarowar.—This lake is known to the Tibetans as Tso Rimpohé, or the Sacred Lake, and only to the natives of India as Manasarowar. It has an area of about 100 square miles and in shape is nearly square. Close by to the south

and south-west rises the great mountain of Mémo, a landmark visible for a great distance from the south and west. To the east are undulating hills, and to the west a sandy ridge, at the most from 200 to 250 feet in height. To the north gently rising stony slopes lead up to the mountain range, where rising to a height of 21,000 feet stands the sacred peak of Kailas. The waters of the lake are fresh, and the depth is probably very great, for the surface when seen on December 1st was only covered with ice for a hundred yards or so from the edge. Gün-Chu-Tso, which contains salt, was frozen entirely over, and yet this fresh-water lake was only so effected round its edges. Hot springs may to a certain extent be responsible for this, for that such exist is certain, there being one large one with a temperature of 115° F. in the passage to the west of the lake. When visited, this passage, which connects Manasarowar and Rakas Tal, was dry, its highest point being about three feet above the level of the lake. The natives of the country, however, say, and this statement was confirmed by an inspection of the channel, that for two months of the year, when the snows on Mémo and on the range to the north are melting, the surplus water pours through this passage from Manasarowar into Rakas Tal. A small monastery stands at the entrance of this channel and overlooks the lake. There is also another temple at the north-west end of Manasarowar occupied by four monks. The lake is held in high estimation by Hindus and Buddhists alike, who believe that the gods descend from Kailas Parbat to drink of its waters.

Kailas Parbat, which rises about 7 miles to the north-west of Manasarowar, however, is of even greater sanctity, as it is believed to be the actual home of the gods. Every year many pilgrims walk round the mountain, some of them measuring their length on the ground for the entire distance. The height of Kailas Peak is 21,000 feet above sea-level, and it rises high above all the surrounding hills. It is easy to understand why this mountain is held to be so sacred, for it resembles an immense building. The roof, which is regular in outline, is covered with perpetual snow. Below the roof the sides are precipitous and fall sheer for several hundreds of feet. The strata is horizontal, and as it is split by upright cracks in many places, it has the appearance of having been built up in blocks. In addition, a large number of caves are said to exist around the base of the perpendicular walls, in which the gods are believed to live. Far below in the plain and in the nullahs close by, many small monasteries have been built, the monks of which obtain their living from the gifts of the pilgrims.

Almora is reported to lie but 13 marches away or at the utmost a fortnight's journey, and if a good road were to be made from that place, it is probable that there would be a very large increase in the number of pilgrims visiting these parts. The road from Pu-rang to Kailas Parbat is good.

Rakas Tal or Lang Nga Tso or La-Gang Tso, the most westerly of the three lakes, has an area of about 50 square miles, and is a long narrow sheet of water lying north and south. It is divided from Manasarowar by a strip of ground, not three miles wide at its narrowest point. The ground between is sandy and undulating, and is in places covered with a low prickly shrub. The waters are reported by the natives to be fresh. Though Rakas Tal receives the surplus waters of Manasarowar in addition to its own supply, yet there is no overflow. Such, however, was not the case a few years ago. The old passage still exists at its north-west end, and is now filled with salt pools. The natives state that no water has flowed down the passage for the last forty years, but as their ideas of time are vague, they add that during the Nepal war (fifty-five years before) the outflow was constant. Without doubt no water has passed from Rakas Tal down this channel for several years; and as this lake, like all other Tibetan lakes, is shrinking, it is more than probable that it will never flow again. The tributary of the Sutlej now rises some four miles to the west.

Population.

In a country like Tibet with a scattered population, a large number of whom are nomads, it is almost impossible to estimate their numbers accurately.

The following is an approximate table of the population in the Brahmaputra Valley, west of Gyantse, and in Western Tibet, about one-tenth being priests :—

Gyantse to Shigatse, exclusive of both places, but including the side nullahs visible from the road	11,000
Shigatse town	18,000
Trashi Lhumpo	4,500
Shigatse to Pin-dzo-ling (Valley only)	4,000
Pin-dzo-ling monastery	800
Pin-dzo-ling to Lhatse (exclusive of)	1,000
Lhatse monastery and town	1,700
Lhatse to Sa-ka Dzong (upper road)	3,000
Lhatse to Sa-ka Dzong (river route)	4,000
Sa-ka Dzong to Tra-dom	1,000
Tra-dom to Gartok	3,000
Gartok to Rudok and to the frontier	1,800
„ „ Shipki including Tü-ling	2,500
Pu-rung and neighbourhood	2,500
Chumurti country	800
Towards the Chang Tang	3,000
Between Gartok-Lhasa road and Himalayas	3,000
Other districts	2,000
	<hr/>
Total of Western Tibet	67,100

Government of Tibet and important personages met with on the road.

In a country like Tibet where the Government is centered in one place, and where power is vested in a few men living in that place, no chances are given to others to rise to permanent importance. Even Shigatse, great religious centre as it is, and all powerful as it formerly was, now rules but a comparatively small area of the country. The Government consists of the Delai Lama, the temporal and spiritual head, five Sharpés', and below these, representatives of the three great Lhasa monasteries. The Shigatse authorities receive the more important orders from the Lhasa Government, but in all minor details rule the district under their influence independently. The spiritual head of Shigatse is the Trashi Lama, and although the Lhasa authorities will not acknowledge it, his sanctity is greater amongst Tibetans as a whole, than that of the Delai Lama himself. The Shigatse district stretches to the west of that town as far as Sa-ka Dzong, after which place the influence of the Lhasa Government again becomes paramount. Southern and Western Tibet are divided into several districts, which, though extensive in area, have small populations. These districts are ruled by Dzungpons, two of whom are always stationed together, and who have equal powers. This custom, which in other countries would lead to much friction, appears to work well in Tibet. These Dzungpons have powers up to life and death, and do not require sanction for their actions from the Lhasa Government; though in the case of death sentences they inform the Lhasa Government after the execution. All matters of great importance, however, such as risings, brigandage or the entrance of Europeans into the country, are referred to Lhasa at once. The Dzungpons are appointed from Lhasa and usually belong to that town. They hold their billets for three years, though their times of service are often extended beyond this period. It is said that the post of Dzungpon is purchased, and without doubt these officials feather their nests well during their tour of office. It speaks well for the law-abiding character of the Tibetans and the power of the central Government, that trouble rarely occurs, and that these Dzungpons are able to rule their districts without the necessity of armed force. A few soldiers are, however, stated to be dotted about the country, mostly along the frontier. As Western Tibet is far removed from Lhasa, even to permit of urgent matters being referred to head-quarters, a separate Governorship of far greater importance has been created. This office also is held by two incumbents who are known as Garpons. They are invariably natives of Lhasa, and are appointed to the post for from three to five years. All cases of urgency are referred by the Dzungpons to the Garpons, who give a final decision, which has, however, to be reported in due course to Lhasa. Officials may leave their posts for long periods,

but must appoint a substitute before leaving. Cases were met with on the journey where one of the two Dzongpons had been away from his post from one to three years: and in the present case of the Garpons, the younger had been acting for his father for eighteen months.

Important personages.

The Trashi Lama, an incarnation of Buddha and the sixth of his line, resides permanently at Shigatse. Here he has two places of residence, a summer and a winter quarters. The former is situated to the east of the town and on the banks of the Nyang Chu; and the winter residence in the Trashi Lhumpo. The present Trashi Lama was born in the year 1881, and is consequently nearly 24 years of age. The Trashi Lamas live to good ages, and do not die violent deaths, as has been the case with all former Delai Lamas.

The present Trashi Lama is held in the highest respect and sanctity by all Tibetans, and though his temporal powers are small, his spiritual influence is equal to that of the Delai Lama.

He is of medium height, delicate build, and fair complexion. His voice is low but clear, and when talking he has a perpetual smile upon his face. His features are clear cut and have all the appearance of high breeding. His expression is intelligent. He invariably is dressed in the dark red clothes as worn by all red Lamas, but below his outer cloak may be noticed embroidered silks and touches of gold. He has the appearance of one who has spent his life in seclusion and thought, interesting himself but little in affairs of the world. I should think that he was weak and could be easily led, and that he would probably restrain from politics unless dragged into them, when he would throw his lot into the stronger side. His wish is for peace. He and the former Trashi Lamas have always been friendly to Europeans, and particularly of the subjects of the Indian Government, as shown by the treatment of Turner, Bogle, Nain Singh, and Chandra Das, and more recently by his abstention from the late war. If once made a friend of, however, he should prove a valuable ally of the Government of India, for he has enough astuteness to surround himself with powerful officials. On several occasions he has expressed himself as being most friendly to England, and requested that the King might be informed of the manner in which he had received us.

The Garpons of Gartok or the Governors of Western Tibet, reside at Gar Gansa during the nine coldest months of the year, moving to Gar Yarsa, 40 miles distant, for the remaining three months.

The names of the present Garpons are, Nasar and Nyen Drong. Nasar is the more important of the two, Nyen Drong being only a substitute, although he has held his present post for the last eighteen months. Nasar is a man of about 40 years of age, and is a native of Lhasa. He has been stationed at Gartok for about three years. He appears to be a good ruler, for his districts are in good order, and the people respect him. He is stout in build, has a rather sluggish mind, and his countenance does not show much cunning. He appears to be willing to be friendly, and a few bribes would easily secure his assistance. He does a certain amount of trading himself, and without doubt also takes commissions from other merchants.

Nyen Drong is a young man of about 20 years of age, of open and honest countenance; he is of slight build though healthy, and enjoys his present position. He has a sharp mind and grasps points quickly. He was very anxious to please and proved most friendly. Though Nyen Drong has not the influence of Nasar, yet he takes most of the conversation upon himself, and by not referring to Nasar shows that he has his own opinions and is not afraid of the older man. Nyen Drong, in my opinion, it would be easy to get round, and if once made a friend of would make a valuable ally. These Garpons have under them (in addition to the Dzongpons of Barkha, Pu-rung and Da-pa) the Dzongpons of Rudok and Chab-rang. The former we did not see, but the natives report badly about him, saying that the tolls he levies make it hardly worth while trading in that part of the country. However, when appealed to for assistance by me in October 1903, he sent over supplies and transport at once, showing that he preferred to be a friend than an enemy.

The Dzongpon of Chab-rang visited us. I was not at all prepossessed with his appearance. Cunning is stamped on every line of his countenance, and his word would be worth nothing. The people of his district (which stretches to Shipki) speak very badly of him, and report that he takes everything he can lay hands upon, ponies, yaks, grain and all movable articles.

If trade is to materially increase, a sharp watch should be kept on both these men, and a report regularly sent as to their behaviour. It will probably become advisable to remove the Dzongpon of Chab-rang altogether from Western Tibet.

The province of Western Tibet, which is under the authority of the Garpons (or Urku as they are called in Hindustani), is called Nari Korsum and consists of the districts of—

- | | |
|-------------|-----------------|
| (1) Rudok. | (4) Pu-rung. |
| (2) Barkha. | (5) Chab-rang. |
| (3) Da-pa. | (6) Chang Tang. |

Of the Dzongpons, the Barkha Tasam Shengo (official) is the most influential.

General health of the inhabitants.

The subjoined statement, showing the number and nature of the cases of Tibetans treated by Hospital Assistant Hira Singh during the journey from Shigatse to Shipki, gives a good idea of the diseases most prevalent in Tibet. It, however, fails to show how numerous diseases of the eye, and noticeably cataract, are. No serious cases of this description could be attended to, on account of our short stay at each place, but it may be safely stated that diseases of the eye outnumber the total of all other complaints. The belief of the people in the power of medicine is extraordinary, and I am of opinion that many cures were made by Hira Singh by belief alone. Should a doctor enter Tibet, he would be sure of a welcome. The Garpons of Gartok requested that a doctor might be sent to them; and if at any time this could be managed, it would add much to the prestige of the European, and would help to pave over any difficulties which might be under discussion or settlement. Tibetans make excellent patients and take the most disagreeable mixtures with relish. From a point of trade, coloured glasses, glasses for the sight, and medicines, particularly those for rheumatism and indigestion, would sell well. For the cure of indigestion, a very common complaint, the firing of the pit of the stomach with hot irons is in general practice.

Statement of cases treated on the journey by Hospital Assistant Hira Singh.

	Male.	Female.	Children.	TOTAL.
Circulatory system	5	...	...	5
Respiratory "	77	35	13	125
Eye diseases	54	46	11	111*
Ear diseases	10	3	15	28
Rheumatism	118	99	...	217
Syphilis	30	12	...	42
Gonorrhœa	3	...	...	3
Diarrhœa	15	13	9	37
Boil	20	6	...	26
Ulcer	35	14	...	49†
Other cases . . . . .	...	...	...	38
				681

Obstacles to trade.

Clause V of the treaty of Lhasa reads: "The Tibetan Government undertakes to keep the roads to Gyantse and Gartok from the frontier clear of all obstruction, and in a state of repair suited to the needs of the trade."

* Only a small proportion of diseases of the eye were treated.

† Probably owing to poor feeding and living almost entirely on meat.

Clause VIII of the same treaty reads: "The Tibetan Government agrees to raze all forts and fortifications, and remove all armaments which might impede the course of free communications between the British frontier and the towns of Gyantse, Gartok and Lhasa." Western Tibet, with which this report primarily deals, has an elevation in the valleys of from 10,200 to 16,000 feet, of which the greater amount lies at a height of from 13,000 to 14,000 feet above the sea. It is bounded on the east by the Ma-yum La, and beyond by the basin of the Brahmaputra. On the north lies Ladak, the Chang Chenmo, and the almost barren tracks to the north-east called the Chang Tang. To the west and south rises the rocky range of the Himalayas. Were it not that there exist many passes through this range of mountains, trading questions between Tibet and India would never have arisen. All these passes are, however, closed by snow from January to May. These are fully reported on under "Proposed new routes." Up to the present time the real obstacle to trade has been the hostility shown by the Tibetan Government to all who are not Tibetans. To prevent the ingress of foreigners, armed guards have been stationed along all passable routes, and to give these guards confidence forts have been erected at convenient intervals. In these forts reside Dzungpons, or fort commanders, together with a few soldiers. These forts are badly designed and poorly constructed, and are always commanded by high ground close at hand. They are invariably situated in a sheltered spot where the greatest comfort can be obtained. The most important of these places in Western Tibet are (1) Rudok, situated on the western shore of the Tso mo Gnalari; (2) Chab-rang Dzong on the banks of the Sutlej, below Tü-ling; (3) Da-pa Dzong on the road between Tü-ling and the Niti Pass; (4) Misar between Pu-rung and Gartok (in reality only a dwelling house); (5) Pu-rung. None of these forts has any guns mounted in them, or is of military importance. In themselves they form no obstacle to the free passage of merchants and traders, but they have a considerable moral influence, and give their respective Dzungpons a feeling of power and security. They are in no wise objectionable, if the Lhasa Government gives orders that no obstacles are to be placed in the way of traders freely entering and leaving the country, and as the Government have declared this to be their wish, I consider that for the present there is no necessity in ordering the demolition of these buildings. Should such need arise in the future, these forts could be rapidly and easily razed to the ground. It must be remembered that these forts are the residences of the local officials, and their destruction would cause much ill-feeling amongst the ruling classes of the country. For the present it is advisable to leave things as they are, and trust to the Tibetans fulfilling their treaty obligations in an honest manner.

Other British subjects entering Tibet besides traders.

Clause II, Treaty of Lhasa, 1904, reads: "The Tibetan Government undertakes to open forthwith trade marts, to which all British and Tibetan subjects shall have free right of access at Gyantse and Gartok as well as at Yatung." Literally this means that all British and Tibetan subjects, whether they are traders, members of expeditions, military officers, sportsmen, globetrotters and others, irrespective of their callings, can come in and go out of the country as they like and from all directions, as long as they go to and come from a trade mart. It should, however, be remembered that Tibet has been a closed country for many years, and the people have been taught to dread the advent of Europeans and to avoid all contact with them. Much good, however, has been done by the Tibet Mission and the Gartok expedition; the former showed them the strength of the British Empire, and the latter that the sahibs could travel right through their country without causing them annoyance, trouble or expense, and in fact that they were the gainers by it. The authorities and people, however, cannot get over immediately their feeling of nervousness that Europeans will overrun their country. I am of opinion, therefore that for the present Europeans should not be allowed into Tibet. One person behaving badly in the country or striking an inhabitant would cause an incalculable amount of harm, and would undo all the good that has been done. A sportsman entering the country for sport would not,

and neither could he be expected to, keep on the road to and from a trade mart, when good shooting was to be obtained just off the road. As soon as thoroughly friendly relations have been established, and the Tibetans have learnt not to fear our coming, and that only good results from close intercourse with Europeans, then it will be time enough to allow others than traders to enter the country. In my capacity as the officer deputed by the Indian Government to make arrangements for opening the trade mart at Gartok, and also to explain to the people the meaning of the treaty, I informed the authorities that no Europeans would be allowed into Tibet without the written sanction of the Indian Government, which would be shown to them if required. In addition to this, however, or in case the Indian Government decide to throw upon the country at once, I suggest the following :—

- (1) That at first preference should be given to officers or others over whom the Government has a good hold.
- (2) That an interpreter, certified to by the Deputy Commissioner of a frontier district, must accompany the traveller. The interpreter must have a thorough knowledge of Tibetan, have a good character, and above all must not be a bully.
- (3) That a Tibetan official accompanies the party, or that at any rate the traveller has in his possession a permit and order signed by the Lhasa Government.

The official could be appointed by the Garpons of Gartok, through the trade agent; and the signed permits obtained by the Trade Agent at Gyantse and kept by him until required. These would add much to the traveller's comfort, and would smooth over any difficulties which might arise.

The above remarks do not apply to any survey, geological or exploring expeditions sent in by or with the approval of the Indian Government, for which it would be advisable to obtain special leave from Lhasa. In such case the Tibetan Government would probably send an official from Lhasa to accompany the expedition.

I consider it advisable that within the next few years other expeditions be sent into the country to explore and survey the still unknown portions of Western Tibet. Without a complete map and a knowledge of the whole country, it is impossible to decide upon future trade marts, the making of roads and other trade questions. The expeditions should include a doctor, a surveyor, and a geologist. The latter officer will be particularly valuable on account of the mineral wealth the country is supposed to contain. From rough experiments made by me in 1903 in the land lying about 10 marches to the north-east of Gartok, I came to the conclusion that great quantities of gold exist in that region.

For many trading, geological and geographical reasons, I suggest the following route, which would practically complete the survey of Western Tibet. As will be seen, it passes through the most thickly populated, the richest, and geographically the most interesting portions of the country :

From Almora over the Lipu Lekh Pass to Pu-rang or Taklakot, and from there to Gartok.

From Gartok past Alung Kangri to Thok Jalung or Tro Shalung gold fields.

From Thok Jalung to Saka Dzong on the Brahmaputra, to Dingri; and back through Nepal.

This route has the advantage of passing through the largest town of Western Tibet, Pu-rang; and of allowing of an inspection of the mart of Gartok and visiting the Trade Agent. The gold mines of Tok Jalung would be examined, and the source of the Indus fixed.

Everest could be mapped at close quarters from Dingri, the nearest town to the north.

Missions.

Having visited all the Moravian Missions now working in the Himalayas, I hold the highest opinion of their teachings and of the civilising effect they have on those with whom they come in contact.

Wherever these missions exist, it will be found that the people are cleaner in their habits than their neighbours, have their fields and orchards in a high state of cultivation, and that they have been taught many useful trades. The missionaries do not force religion down the people's throats, but teach Christianity by the practical way of healing the sick and helping the poor. These missionaries are quiet in manners, and by their example give to the people a good idea of Europeans.

Were the Tibetan Government to allow of a mission being stationed in Gartok within the next few years, the opportunity should be taken advantage of.

All these missions are now stationed in Buddhist districts and live on terms of friendship with the Buddhist priests and people.

Coinage.

The monetary system is of the simplest description. The one and only coin in general use is the "tunka," a thin silver coin, in width half way between the rupee and eight-anna pieces of India. When small change is required, pieces of silver of the desired weight are cut out of the tunkas. One tunka is equal in value to six annas, but three tunkas equal one rupee. It will be seen by this alone that the value is not constant, a fact which considerably checks trade. The coins, in addition to having their edges pared and pieces chipped out of them, are again depreciated in value by the large number of forgeries in circulation. The authorities and people are well aware of this fact, but the former nevertheless compel the inhabitants to take this bad money at its full nominal value. Amongst the Tibetan nomads, trade is usually carried on by the simple process of exchange, which works fairly well amongst themselves, but which becomes most wasteful when paying taxes, wages, etc. The Indian rupee is very popular, and a large quantity of these coins are now in the hands of Tibetans, but they are usually hoarded and rarely come into circulation.

The East India Company's rupees are the most highly prized, then follow those of Queen Victoria's later reign, and thirdly the rupees which have been struck during the last few years. This is probably on account of the East India Company's coins having the greatest width, while those having the head of King Edward VII have the smallest diameter. Small Indian silver coins are very scarce. In the east of Tibet a certain number of Chinese rupees are in circulation, and though they find approval with the natives, they are very limited in numbers.

Traders from India import yearly a considerable amount of rupees in silver ; nevertheless trade will never be carried on in Tibet to its full extent until some good and sound currency is used. For this reason I consider that, as the rupee is known and is approved of by the people, it is desirable that a similar coin be either manufactured in, or introduced into, the country. I can see no reason why the priesthood or ruling powers should object. There are three ways open :—

- (1) To introduce in large quantities the Indian rupee and smaller coins into Lhasa in exchange for gold, or on loan to the Tibetan Government. It must not be forgotten that a coinage which bears upon it a head representing the ruler of a country has not only a considerable civilising influence, but also carries great political weight with it.
- (2) To coin rupees in India, which coins shall bear monastic religious signs designed for, and approved by, the Tibetan Government.
- (3) For the Tibetan Government to set up in Lhasa, European coining machinery to be worked locally.

Until a satisfactory and popular coin is in regular use, trade both in the country itself and with India will necessarily be restricted.

A general geographical description of Tibet, west of Shigatse, with remarks.

Tibet has an area of about 600,000 square miles, about half of which lies to the west of Shigatse. This western half consists of a great plateau which reaches its greatest altitude at its north-western end and south of the Kuen Luan mountains, from where it steadily falls away to the east and south.

It is bounded on the north by the snow-clad range of the Kuen Luans, which lie nearly east and west, rest on the Hindu Kush in the west and China in the east, and have an average height of about 20,000 feet. The west is bordered by the Himalayas and the wild regions of Spiti and Ladak. Along the south again rise the Himalayas, which, with the exception of certain peaks, gradually diminish in both height and width the further they go eastwards.

The country lying within these boundaries consists of rocky ranges, between which stretch great plains. In these plains, as a rule, lakes exist, of which a large majority, probably 80 per cent., are salt. In many cases, so great is the quantity of salt that at times the water cannot hold the mineral in solution, and piles the saline matter in ridges along its shores, thereby killing any vegetation which may be growing near. These lakes, almost without exception, are rapidly diminishing in size.

Only three rivers of any considerable size exist: the Brahmaputra or the Machang Tsangpo or simply the Tsangpo, the Sutlej, and the Indus.

The Tsangpo or Great River rises in the Ma-yum La, flows eastwards and parallel to the Himalayas through which range it forces its way, and finishes in the Bay of Bengal. The Sutlej rises a few miles to the west of Rakas Tal, flows westward past Shipki, and through the Himalayas into Hindustan. The Indus rises to the north of Kailas peak, flows in a north-westerly direction, past Leh, through Kashmir, and into the Indian Ocean. There are, however, a few small streams which, with the exception of Dingri Chu and the Gogra, all end in fresh or salt-water lakes.

The Himalayas proper do not form the watershed of the Brahmaputra, the water on the northern slopes of the mountains flowing back, and in a southerly direction, through cuttings in the range. The southern watershed of the Brahmaputra lies but a few miles from the river, the line being along a comparatively low range of mountains, running parallel to the river, and having an average altitude of from 19,000 to 20,000 feet.

The mountains of Western Tibet are chiefly composed of limestone with outcrops of granite, the valleys and plains being covered with shale, gravel, and sand. The country is commonly supposed to be rich in precious stones. Whether such is the case, we were unable to determine, but without doubt the land is immensely rich in gold. The chief mines, which are at present worked in a very primitive fashion, are mostly situated to the north-east of Gartok and to the east of Alung Kangri, the most important one being known as Thok Jalung or Troshalung. The mode of working is by scraping the soil in the plain to a depth of six or seven feet, placing the stuff on cloth, which is made to lie in ridges, and then to turn the running water over it. Another practice also in common use is that of washing in a wooden basin with a rolling stone. Old diggings lie as far north as the Kuen Luans, but these are not regularly worked on account of the distance, cold, and scarcity of food. All mining is alluvial, and practically the whole of the gold is sent to Lhasa.

Nowhere in the western half of Tibet do trees grow naturally; the only ones in existence are those which have been planted by the villagers on the Sutlej, a few spots on the Indus, and in the Tsangpo valley east of longitude 87°. Two varieties of scrub grow freely in parts: one, a prickly and fast burning wood, reaches a height of from two to three feet from the ground, and grows on sandy soil in the lower places of Western Tibet; the other, known as *bhoortsa*, grows at elevations exceeding 16,000 feet, and therefore is to be found in the greatest quantities in the plains to the north. Argols or yak dung are used for fuel everywhere, and when old and dry burn very well; there

are immense quantities of argols from the wild yak to be found in the northern plains. In addition, the prickly bushes before mentioned and wood from the village trees are also burnt, when available.

Grass grows freely everywhere, of three or four varieties. When growing, the grass is extremely nutritious, but when dead, though it remains standing, it contains but little goodness. A barren stretch of country, 20 miles in width, lies along the southern slopes of the Kuen Luan range.

From a geographical standpoint and by a casual glance at the map, the Himalayas form the natural frontier of India, but on more careful examination it will be seen that not only do rivers run through the range, but that there are many passes. These passes are, though high, not formidable to either natives or well organised caravans, and are open to traffic for from 6 to 7 months in the year.

The Kuen Luans, on the other hand, have no peak approaching in height the higher mountains of the Himalayas, but the passes across them in the western half of Tibet are few in number and are nearly always under snow. The Karakorum Pass, though not actually in the Kuen Luans, has an altitude of over 19,000 feet, and over this all the caravans from Khotan move, losing, as may be imagined, large numbers of transport animals on the way. The passes into Tibet itself, from Khotan, Polu, Keria, etc., are seldom used, except by exploring parties. The rise to the summit of the Kuen Luans from the north is very severe, as Chinese Turkistan lies only at an altitude of 2,000 feet above sea level; while the plains to the south of the Kuen Luans lie at an average altitude of from 16,000 to 17,500 feet. Supposing that a well organised and equipped force of 10,000 soldiers lay in the Sutlej, Indus, or Brahmaputra valleys, they would find no serious obstacle blocking the road to Hindustan. If the same force were, however, on the northern side of the Kuen Luans, it would, without the assistance of a railway, be absolutely impossible to reach India. The transport of all Chinese Turkistan could not move them. We have only to study the results of the few carefully organised expeditions which have entered Tibet, to see the hopelessness of trying to travel in any force in the country. Captain Bower in 1890 lost all but three of his 45 ponies before reaching China. Captain Deasy out of 43 brought back, I believe, five alive. Captain Wellby lost every animal of 41 before he had traversed half the distance; and in my own case in 1903, though food was carried for some distance by hired yaks, and a fresh supply was obtained from some buried stores, yet we lost 29, and the remaining 15 animals were unable to carry loads. The severe cold, the hurricanes which sweep over the country, the absence of grain and the scarcity of fodder, the frequent difficulty of finding fresh water, and the entire absence of human beings, convert this northern country into an impassable barrier to any but the smallest expeditions.

The chief obstacles to the building and working of a railway line through Northern Tibet are—

- (1) Absence of local labour.
- (2) Absence of fuel with the exception of yak dung and argols.
- (3) Absence of wood for building purposes.
- (4) Scarcity of fresh water.
- (5) Intense cold.

Exports and Imports between Western Tibet and India.

Exports.

The chief exports from Western Tibet are :—

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|------------|------------|
| (1) Wool. | (3) Salt. |
| (2) Pashm. | (4) Borax. |
| | (5) Gold. |

During the season of 1904 the price of all exported articles rose considerably, owing to the large mortality amongst the sheep. The increase in many cases was from 50 to 100 per cent. The prices here given are those which prevail at normal times.

The wool is brought into one or other of the trade marts by nomads, and is there purchased by traders from India. In many cases the sheep are driven to the trade mart and are there shorn, the fleece being roughly washed on the spot, packed into bundles and sent off to India. As may be imagined, the price of wool varies considerably in proportion to its proximity to the frontier.

In order to buy the wool at a cheaper rate, many of the traders travel about the country and purchase the wool from any flocks they meet. The ordinary price of uncleaned wool is from 8 to 14 seers per rupee, the price varying considerably according to the quality. The wool grown in the Chumurti country is considered the most valuable. Fleeces sell from 2 to 3 per rupee.

Pashm.—This valuable article of merchandise is the under-wool of a certain breed of goats (which can only live at the highest altitudes) and which is combed from them during the spring. Much of the pashm is imported into Kashmir, there to be manufactured into the famous shawls of Srinagar. The price of pashm in Gartok is from 1 to 1½ seers per rupee.

Salt.—Large quantities of salt are imported into all the valleys of the Himalayas, and is carried on the backs of sheep. The salt is obtained from various lakes which lie to the north of Gartok, and is sold at the fairs at about 8 annas per sheep-load of 24 lbs.

Borax.—Can be obtained in unlimited quantities, and is found in close proximity to the salt lakes, north of Gartok. Most of the borax, however, is disposed of in the more southern marts, and here fetches about eight annas per sheep-load. If carried direct into India, one load of borax is exchanged for two loads of barley or rice.

Gold.—The chief centre of work is Thok Jalung or Tro shalung, which place lies about 7 marches north-east of Gartok. Many other workings, however, exist and are to be found even in the Chang Tang far away to the north. The workings are all alluvial, the precious metal existing in paying quantities in probably every valley in Western Tibet at altitudes of over 14,500 feet. These mines are worked by Lhasa men, men from Kulu, and nomads. Much of the metal is taken to Lhasa, but a considerable amount, probably more than is believed, finds its way into India. The output would probably very largely increase if the manner of working the soil was improved; even the introduction of a few rocking machines would make a considerable difference. The proper development of the country is handicapped by the altitude, cold and scarcity of fuel, and in many instances by the need of running water.

A monk official (Tsitung), with the title of Serpon, collects taxes from the workers, at the rate of about Re. 1 of gold per man per annum. A deputy Serpon resides at Thok Jalung permanently, and does the actual collecting for his superior, who on returning to Lhasa in October takes the taxes with him. Gold-dust sells at from 14 to 18 rupees of silver to 1 rupee weight of gold, according to the amount of dirt it contains.

In addition to the above articles, there are other goods which are exported in small quantities such as—

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|---|--------------------------|
| (1) Turquoises. | (3) Brick tea (Chinese). |
| (2) Yaks' tails (black and white). | (4) Chinese silk. |
| (5) Precious stones (small quantities). | |

Imports.

The following are the articles imported into the province of Nari khorsom, of which Gartok is the Capital:—

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|--------------------|--------------------------|
| (1) Indian cloths. | (6) Enamelled ironware. |
| (2) Sugar. | (7) Hardware. |
| (3) Goor. | (8) Dried apricots, etc. |
| (4) Rice. | (9) Tobacco. |
| (5) Barley. | (10) Coral. |

And in addition from Lhasa such articles as —

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|--|--|---------------------|
| (1) Brick tea. | | (3) Blankets. |
| (2) Turquoises. | | (4) Woollen stuffs. |
| (5) Clothing (such as boots, shoes, hats, etc.). | | |

Indian cloths.—These include plain and coloured linens, blue and white drill for tents, red woollen cloth for clothing, and Amritsar squares of stamped linen for their tents and houses.

Sugar—Is only imported in small quantities, and is used by the wealthier people.

Goor—Is greatly in demand for both local consumption and as an article with which they pay their taxes to the Lhasa Government. Goor arrives in the usual cone-shaped packets, each of which sells for about 8 annas.

Rice—Is an article of food much appreciated by all, but on account of its high cost can only be used by the wealthier inhabitants. Rice sells for about 2½ lbs. per rupee or Rs. 30 per maund, an almost prohibitive price.

Barley—Is grown in all the lower valleys, but not in sufficient quantities to supply the needs of the inhabitants, and as it is practically the only cereal used, were it not for the grain imported there would be a perpetual famine in the land. Even as it is, barley costs about one rupee for 5½ lbs.

Enamelled ironware.—Though the condition of the roads are all against the importation of bulky goods, yet a considerable amount of blue and white ironware is in use in the country. The ordinary tea-pot is well suited to the wants of the inhabitants.

Hardware—Such as rough tools, scissors, and jack knives are often to be seen, many of which bear the name of Rogers of Sheffield, and also the marks of German firms.

Apricots.—The country is at too great an altitude to raise fruit, in consequence of which dried apricots, raisins, and other kinds of fruits to be found in the valleys of the Himalayas are imported.

Tobacco.—All of the rough native description.

Coral.—The dark qualities of coral are not popular, the inhabitants preferring the lighter and pinker shades, and those which are not appreciated in Europe.

Brick Tea.—This consists entirely of the very worst quality of China tea, and is all imported from Lhasa (see below).

Blankets.—The majority of the blankets used by the people are made locally, but several of the better qualities are imported from Lhasa.

Clothing—Is nearly all made by the people themselves, and only the superior stuffs, such as silk coats and boots, are imported.

Turquoises—Are imported from Lhasa in the rough, and are exported into India, from where they again enter the country manufactured into ornaments of jewelry.

Trade in Western Tibet has in past years been much restricted, owing to the oppression of traders by the officials, and by the orders of the Lhasa Government, which have closed the majority of the routes. Natural obstacles have also been against any increase taking place, such as the bad condition of the roads lying between India and Tibet, which it is hoped will now be improved. Again, the population is very scanty, chiefly on account of the custom of polyandry and the difficulty of obtaining cereals. The former is probably a result of the latter, and consequently if the roads to and from India are improved, enabling grain to be imported at a reasonable rate, the population will in all probability increase. Though the inhabitants are few in number, their worldly possessions are, in the way of live stock, immense.

Indian cotton goods are now popular, and are able to hold their own against all comers. There would be a large increase in cotton cloths for the roofs of houses and the interior linings of the tents, if the Indian merchants were to manufacture squares of the designs required. This will probably come of its own accord as a result of increased wealth.

The Tibetans, being, as they mostly are, nomads, and also great tea drinkers, use cooking utensils in excess of the numbers required by most races. A large majority of these pots and kettles are made of copper, and are all imported from Nepal. The cost, however, of these articles is great. A large increase therefore might be looked for if the roads from India were improved, as enamelled ironware is clean, cheap, and popular. Mules, ponies, and yaks would be able to carry these goods far better than sheep can at the present time.

Tibetans are probably the heaviest tea drinkers in the world. Chinese brick tea has an entire monopoly of the market, no Indian tea being drunk at all. It is, however, in this market that we may look for a large increase of Indian tea, provided the tastes and requirements of the people are considered, and which, if it once gets a hold on the inhabitants, will completely displace the China brick tea now in use. To hope for any success the tea must, for the present, be made into blocks resembling the Chinese article, and be covered with similar gold paper. The weight of a brick is about $4\frac{3}{4}$ lbs. Tibetans complain that Indian tea produces headache, but this is probably a superstition, handed down from previous generations, and a belief fostered by the Chinese importer. If a headache is caused by the drinking of Indian tea, a statement I do not believe, the tea might be adulterated by a small addition of opium or some similar soothing drug. The chief thing, however, to be done at present is to make the tea into packets which closely resemble the bricks imported from China.

These bricks in Western Tibet sell at the rate of Rs. 5 per brick, or rather over Re. 1 per pound; these are, however, of the worst quality and known as dru nyi. A better quality is sold in Gartok, though to a limited extent, at rather below Rs. 2 per pound.

In addition to the goods now imported, we may expect to find, as the wealth of the people increases and as the desire to trade grows, that the following articles will sell well:—

Boots.	|	Medicines (chiefly quinine and other simple drugs).
Shoes.		Tools (carpentering, mining and agricultural).
Watches.		Silks.
Chains.		Guns.
Jewelry.		Traps (for wolves, etc.).
Coloured glasses.		
Spectacles.		
And for Export.		
Gold.	|	Skins (wild animals, such as wolf and chiru).
Precious stones.		Live-stock.
Skins (sheep, goats, and yaks).		

Trade marts.

It is not until the end of June that the inhabitants think of barter and trade. The reason for this is, that the passes on the Himalayas, by which the merchants from India enter the country, are closed by snow until the beginning of June. These merchants, as soon as they have entered Tibet, proceed to one of the pre-arranged spots, usually a village, but sometimes a grassy patch in a plain, and here set up their tents. Tibetans and other traders appear, likewise set up their tents, and then bargaining begins. When a Tibetan has sold his goods or has purchased all he requires for the year, he departs, another dropping in and taking his place; and in a like manner the Indian merchants come and go. In case the prices are not satisfactory or the articles for sale in excess of the demand, the trader moves, driving his sheep with him, to some other spot, where he hopes that business may be brisker. The dates of meeting are arranged by common consent, so that one meeting does not clash with another, and consequently they become regular fairs, lasting sometimes for days and sometimes lengthening into weeks.

The three most popular places of meeting are De-Pa Dzung Pu-rang or Taklakot and Gartok.

Many of the Indian merchants remain at De-Pa during the entire season for this place taps the Sutlej valley and shortens the journey from India.

Pu-Rang is also a popular place, for grain and fodder are available, and the valley is comparatively thickly populated. At Gartok, however, is held the chief fair, and here the people begin to collect about the middle of August. Besides trade, official business is transacted here, taxes are collected, and to enliven the proceedings sports are held, consisting chiefly of racing and shooting. Though Gartok consists of but three houses, it is as conveniently situated as any other place, and as it is central, with good water and grazing close at hand, it has been chosen as the official capital of Western Tibet. Besides these three marts, many other small fairs are held during July, August, and September, lasting generally from one day up to a week, the most important of which are :—

Chab-rang.	Tirthapuri.
Tü-ling.	Misar.
Chumurti.	Gyanima.

It will be seen by this that not one but many fairs are held, to suit the requirements of the people, and that except in name, and that it is the official capital, Gartok is of little more importance than any of the others. It will be necessary therefore for the British Trade Agent to be present at each place in turn, that he may see for himself how things are going. He can still have his nominal head-quarters at Gartok, but he will learn little if he stays there and does not mix with the people and hear their complaints and suggestions on the spot. He will also be more likely to pick up valuable information at these festive meetings.

Trade routes into Western Tibet from India with comparison and suggestions.

Western Tibet is by no means a closed country to the natives of the southern slopes of the Himalayas, and these people pass in and out by many paths and many passes.

The principal roads are :—

- (1) From Srinagar (Kashmir) through Leh, Ladak, up the Indus Valley to Gartok, and so to Lhasa by the chief road in Tibet. This road is mainly patronised by Ladakis, Kashmiris, and men from Chinese Turkistan.
- (2) From Kulu over the Shangrang La, into the Chumurti country, and from thence to Gartok.
- (3) From Simla, up the Sutlej valley to Shipki, through the Chumurti country, or up the Sutlej, to Gartok.
- (4) From Badrinath over the Mana Pass (17,890) to Töling.
- (5) From Almora through Jashinath and Niti, over the Niti Pass (17,000) to Gartok.
- (6) From Almora through Milam, over the Untadhaura Pass (17,590 feet), to Gartok.
- (7) From Almora, up the Kali river valley, over the Lipu Lekh 16,750, to Pu-Rang and Gartok.

As it is absolutely necessary that one or more good roads be constructed along trade routes from India into Tibet, a comparison between each of these roads is here made, in order that the best may be chosen.

The (No. 1) road from Leh in Ladak is outside the area of this report, besides which it can in no way clash with the more southern routes, as it enters the country from another direction and taps the trade of an entirely different country.

The (No. 2) Kulu road is but a cooly path, and though patronised by Kulu traders, it is such that it can never be made into a good road.

The (No. 4) Badrinath-Mana Pass route presents many disadvantages. The pass is high, nearly 18,000 feet, has glaciers on each approach, is nearly always covered with snow, has no grazing for one or two marches, and is considered by the people to be a very difficult pass. The summit of the pass is distant 161 miles from Almora. A certain amount of money has been granted

to improve the road from Joshinath to Badrinath, a distance of 18 miles, but this is for the benefit of the pilgrims visiting Badrinath. It is very doubtful whether a road suitable for mules could possibly be made to the summit of the Mana Pass.

The (No. 6) Almora, Milam, and Untadhaura Pass route. The summit of the pass is distant from Almora 173 miles and lies at an altitude of 17,500 feet. The pass itself is a difficult one and the path to it is in villainous condition. The ascent is over a glacier, on which it is of course impossible to make a road. The descent on the Tibet side is also of the worst description, and two other passes have to be crossed within the next ten miles, before level ground is reached. The Untadhaura Pass is mainly used by the natives of Milam valley; nevertheless 4 lakhs worth of merchandise is carried over yearly. However, this route offers such serious obstacles to the passage of transport animals that for the present it need not be considered any further.

We are now left with three possible routes, Nos. 3, 5, and 7, and these must be compared more closely.

No. 3. The Simla-Sutlej valley, Shipki, Gartok road.

The distance from Simla to Shipki is 20 marches or 218 miles, along the road known as the Himalayan-Tibet Road. This road for the first $15\frac{1}{2}$ marches has been completed, is in excellent condition, and requires no further improvement. Beyond this, however, that is to say, half way between Kanam and Shaso, the road practically ceases, and the track is so bad that no laden animals other than sheep can possibly get along. From here onwards for $4\frac{1}{2}$ marches to Shipki, the first town in Tibetan territory, an entirely new alignment must be made. Mr. Hart, Deputy Conservator of Forests, estimates the cost of constructing a new road for these $4\frac{1}{2}$ marches at about one lakh of rupees, while others consider that it will reach to two lakhs.

I am strongly of opinion that this road should be completed at once as far as Shipki, and for the following reasons:—

- (1) That $15\frac{1}{2}$ out of the 20 marches are already finished, and that, unless the remaining $4\frac{1}{2}$ marches are made, the present road is little better than useless.
- (2) The Shipki lumbadar has promised to carry on the road in Tibet for one or two marches, after which the road will lead into open country.
- (3) Simla is the summer seat of the Government of India.
- (4) Good communications will be opened up between Gartok and Simla.
- (5) The rich Chumurti wool and pashm country will be reached.
- (6) The Sutlej valley is densely inhabited in comparison with the amount of land under cultivation. The crops raised are not nearly sufficient to support the population, and therefore grain, etc., have to be imposed. To be able to buy the grain, the people must have money, and the only way to make money in their eyes is by trading.

The people are keen to go in for trade, and ask for nothing but a mule road and a free passport into Tibet. The latter has already been obtained and there only now remains the former obstacles. From Shipki, there are two roads, both of 12 marches to Gartok; the southern one, that taken by the expedition, is in the Sutlej valley itself, and is almost useless on account of the immense ravines which have to be crossed. The northern route through the Chumurti country is the one favoured by traders. The first two marches from Shipki are hard, but offer no serious obstacle, after which the country opens out and the great sheep-breeding centre is reached. Many passes lead from here into Gartok, over a range of considerable height. None of these passes are below 18,000 feet, but they are all easy and are in regular use by both nomads and traders.

For both political and trade reasons I strongly recommend the completion of the Himalayan-Tibet road at once, and I am of opinion that the Government will be well repaid the cost of the work.

I concur with Mr. Hart in his remark that a certain amount of skilled labour will be required.

No. 5.—Route or the Almora, Joshinath, Niti and Niti Pass route.

Joshinath is distant 18 miles from Badrinath, 164 from Hardwar, and 60 from the summit of the Niti Pass. The total distance of the Niti La from Almora is 158 miles. The height of the pass is between 16,600 and 17,000 feet.

There are no great obstacles to contend with along this route, the gradients are not very severe, the pass not very high, and the cost of construction comparatively small. Mr. Watts estimates the cost at $1\frac{1}{2}$ lakhs of rupees. Nevertheless it does not compare with Lipu Lekh road, in that the country it enters from India is not so suitable for trade, and the people who use this route come mostly from the valleys near at hand.

No. 7.—Almora, Kali river, Lipu Lekh (16,750) to Pu-rang and Gartok.

There are two possible starting places which can be used when crossing into Tibet by this route: Almora and Tanakpur. Almora is the head-quarters of the district, and Tanakpur it is intended to make the terminus of a railway. The roads from both these places pass through Askot, which place is distant from Tanakpur 85 miles, and from Almora about 70 miles. The stages from Askot onwards are—

Balwakot	$11\frac{1}{2} = 11\frac{1}{2}$
Dharchula	$9\frac{1}{2} = 21$
Khela	$9\frac{1}{2} = 30\frac{1}{2}$
Tithla	$8 = 38\frac{1}{2}$
Gulla	$10 = 48\frac{1}{2}$
Malpa	$7\frac{1}{2} = 56$
Garbyang	$10\frac{1}{2} = 66\frac{1}{2}$
Kalapani	$9\frac{1}{2} = 76$
Lipu Lekh Pass	$8\frac{1}{2} = 84\frac{1}{2}$

or a total of about 155 miles from Almora: or 170 miles from Tanakpur.

The height of the Lipu Lekh Pass is 16,750 feet. The gradients on the Tibet side are easy, the road passing over undulating ground, into a ravine, and then on to the town of Pu-rang, or Taklakot, distant from the Pass about 155 miles. The largest amount of the Almora trade now passes by this route. When, as must happen in time, Manasarowar Lake and Kailas Parbat become favourite places for the pilgrims from India to visit, their shortest route without doubt will be by this route. It will be seen by the map that Pu-rang lies in a valley distinct from other parts of Western Tibet, for it is situated on the Gogra river which runs through Nepal, and trade consequently will tap the villages situated on the banks of the river further down.

The cost of improving the road from Almora to the summit of the Lipu Lekh, making it into a ten-foot road with six-foot in the clear at the worst places, will be, by Mr. Watts' rough estimate, between five and six lakhs of rupees. This route at the present time is more favoured by traders than any of the other roads, and when the railway is built to Tanakpur, the trade is certain to increase very largely.

The latest figures for the U. P. trade with Tibet are:—

	1902.	1903.	1904.
Nana Pass	33,000	37,000	43,000
Niti Pass	1,63,000	1,42,000	1,31,000
Native Garhwal	55,000	78,000	27,000
Untadhaura Pass	3,00,000	4,21,000	3,92,000
Lipu Lekh	5,76,000	4,98,000	4,7,000

To sum up therefore I recommend the following :—

I.

The immediate completion of the Simla-Shipki road. This should be taken in hand at once, and should be completed before the Tibetans have time to change their minds as to the reading of the Lhasa Treaty.

II.

The construction of the Almora Lipu-Lekh road. This is most important, as it strikes directly at the main road of Tibet, that between Lhasa and Gartok; besides leading straight to Manasarowar and Kailas Parbat.

III.

As soon as the two roads mentioned above are finished, the Niti Pass road should be made, and as it can be done at a small cost, it will well repay the expense. The completion of this road will enable the traders and pilgrims to enter Tibet by one route, and return to India by another.

A glance at the map will show how every district of Western Tibet will be reached with ease by traders from India if these paths are turned into roads suitable for mule transport.

The Leh road from Kashmir taps the Rudok district and the Indus valley.

The Shipki road passes into the heart of the Chumurti country.

The Lipu Lekh road runs into the Pu-rang valley, the Manasarowar Lake basin and the head waters of the Brahmaputra.

Both for political and commercial reasons, I consider that advisable to construct these roads with as little delay as possible, for the Tibetans, since the defeat of the Kashmir General, Zorawar Singh, in 1842, have always believed themselves invincible, and though they have probably changed their opinion since the entry of the Tibet Mission into Lhasa, yet it is certain that, if there are no good communications into the country from India, the priests will attempt to shut up the country again. These roads could never be of any value to the enemies of the Empire, for the land to the north forms a far more serious obstacle to cross than any part of the Himalayas.

Post and telegraph distances to Gartok from Simla by different routes.

Simla to Gartok *viâ* the Sutlej valley and Shipki. Simla to Spuch (Poo), 18 marches. At Poo, there is a British post office with a weekly post. From Poo to Shipki, 2 marches. From Shipki to Gartok, 12 marches. Total number of marches from Simla to Gartok, 32 marches or about 350 miles. Time for a letter to reach Gartok from Simla about 15 days.

Srinagar to Gartok *viâ* Leh.

Srinagar to Leh 18 marches or 250 miles; Leh to Gartok, 18 marches or about 200 miles. Total from Srinagar, 36 marches or 450 miles. From Simla the post takes three days to Srinagar and five to Leh, and from Leh if a *dâk* was arranged eight days; total from Simla 16 days. Leh, however, has a telegraph office, so with changes of ponies, a telegram would reach Gartok in seven or eight days by this route.

Gyantse to Gartok 51 marches, or a total distance of 697 miles. This distance is covered by the Lhasa Government's messengers in 19 days. Gyantse, however, is distant from Simla about nine days by post, therefore a letter will take from Simla 28 days. At Gyantse, however, there is a telegraph

office, consequently a telegram to Gartok by the route should only take 19 days.

The Gartok-Simla line *via* Shipki is, however, the safest of these routes for the present, but delays are likely to occur in winter on account of the passes being deep in snow. Should Thakur Jai Chand, Trade Agent at Gartok, require to forward an important communication to the Indian Government, it would be advisable to send a duplicate letter *via* Gyantse. This, however, should be well sealed, for if it contains news regarding the Lhasa Government, it will probably be tampered with on the road.

APPENDIX.

Translation of the Treaty signed at Lhasa on 5th September 1904.

Whereas doubts and difficulties have arisen as to the meaning and validity of the Anglo-Chinese Convention of 1890 and the trade Regulations of 1893, and as to the liabilities of the Tibetan Government under these agreements, and whereas recent occurrences have tended towards a disturbance of the relations of friendship and good understanding which have existed between the British Government and the Government of Tibet; and whereas it is desirable to restore peace and amicable relations, and to restore and determine the doubts and difficulties as aforesaid, the said Governments have resolved to conclude a convention with these objects, and the following articles have been agreed upon by Lieutenant-Colonel F. E. Younghusband, C.I.E., in virtue of full powers vested in him by His Britannic Majesty's Government, and the Gaden i Rimpaché Losang Graltam and the representatives of the Council of these monasteries Nosang, Tubden Fya tso Defender and Protector of the Buddhist faith, and of the ecclesiastics and officials on behalf of the Delai Lama of Tibet.

I.

The Government of India engages to respect the Anglo-Chinese Convention of 1890, and to recognise the frontier between Sikkim and Tibet as defined in Article I of the said convention and to erect boundary pillars accordingly.

II.

The Tibetan Government undertakes to open forthwith trade marts to which all British and Tibetan subjects shall have free right of access, at Gyantse and Gartok, as well as at Yatung. The Regulation applicable to the trade mart at Yatung under the Anglo-Chinese Convention of 1893, shall, subject to such amendments as may hereafter be agreed upon by common consent between the British and Tibetan Governments, apply to the marts above mentioned. In addition to establishing marts at the places above mentioned, the Tibetan Government undertakes to place no restrictions on the trade of existing routes, and to consider the question of establishing fresh trade marts under similar conditions if development of trade requires it.

III.

The question of the amendment of the Regulations of 1893 is reserved for separate consideration, and the Tibetan Government undertakes to appoint fully authorised delegates to negotiate with representatives of the British Government as to the details of the amendments required.

IV.

The Tibetan Government undertakes to levy no dues of any kind other than those provided for in the tariff to be mutually agreed upon.

V.

The Tibetan Government undertakes to keep the roads to Gyantse and Gartok from the frontier, clear of all obstructions, and in a state of repair suited to the needs of the trade; and to establish at Yatung Gyantse and Gartok, and at each of the other trade marts that may hereafter be established (according to clause II), a Tibetan Agent, who shall receive from the British Agent appointed to watch over British trade at the marts in question, any letter which the latter may desire to send to the Tibetans or Chinese authorities. The Tibetan Agent shall also be responsible for the due delivery of such communications and for the transmission of replies.

VI.

As an indemnity to the British Government, and for the expenses incurred in the despatch of armed troops to Lhasa, to exact reparation for breaches of treaty obligations and for the insults offered to, and attacks made upon, the British Commissioner and his following and escort, the Tibetan Government engages to pay a sum of £500,000 or Rs. 75 lakhs to the British Government. The indemnity shall be payable at such place as the British Government may from time to time after due notice indicate, whether in Tibet or in the British districts of Darjeeling or Jalpiguri, in seventy-five annual instalments of one lakh of rupees on the 1st January in each year beginning from 1st January 1906.

VII.

As security for the payment of the above-mentioned indemnity, and for the fulfilment of the provisions relative to trade marts specified in Articles II, III, IV and V, the British Government shall continue to occupy the Chumbi valley until the indemnity has been paid, and until the trade marts have been effectively opened for three years, whichever date may be the later.

VIII.

The Tibetan Government agrees to raze all forts and fortifications and remove all armaments which might impede the course of free communications between the British frontier and the towns of Gyantse and Lhasa.

IX.

The Government of Tibet engages that without the previous consent of the British Government:—

- (a) No portion of Tibetan territory shall be ceded, sold, leased, mortgaged or otherwise given for occupation to any Foreign Power.
- (c) No representatives, or agents of any Foreign Power, shall be admitted to Tibet.
- (d) No concession for railways, roads, telegraphs, minings or other rights, shall be granted to any Foreign Power, or the subject of any Foreign Power. In the case of consent to such concessions being granted, similar or equivalent concessions shall be granted to the British Government.
- (e) No Tibetan revenues, whether in kind or in cash, shall be pledged or assigned to any Foreign Power, or the subject of any Foreign Power.

X.

In witness whereof the two negotiators have signed the same, and affixed thereunto the seals of their arms.

Done in quadruplicate at Lhasa this 2nd day of September in the year of our Lord one thousand nine hundred and four, corresponding with the Tibetan date the 22nd day of the 7th month, dragon year.

(Sig.)

In proceeding to the signature of this convention, dated this day, the representatives of Great Britain and Tibet declare that the English text shall be binding.

(Sig.)