

Eleventh Meeting, April 26th, 1875.

MAJOR-GENERAL SIR HENRY C. RAWLINSON, K.C.B., PRESIDENT,
in the Chair.

ELECTIONS.—*A. R. de Beaumont, Esq.*; *N. B. Dennys, Esq.*; *Oscar Dickson, Esq.*; *Charles Ebdon, Esq.*, B.A.; *Charles Walter Everard, Esq.*; *James Grignon, Esq.* (H.M. Consul at Riga); *Joseph Howard, Esq.*; *Lord Inverurie*; *Robert Jardine, Esq.*; *A. Johnston, Esq.*; *J. S. Lister, Esq.*; *Rev. P. F. Swann, M.A.*

PRESENTATIONS.—*A. W. Sadgrove, Esq.*; *J. A. Skeritchly, Esq.*; *Capt. J. G. Shanks.*

DONATIONS TO THE LIBRARY, APRIL 13TH to 26TH, 1875.—The Thermal Paths to the Pole, &c.; by Silas Bent, 1872 (*M. S. Fife, Esq.*). Rejang Manuscripts on Bamboo; by J. Park Harrison, 1875 (*Author*). Report of the Permanent Committee of the first Meteorological Congress at Vienna for the year 1874 (*The Meteorological Committee*). Selections from the Records of the Bombay Government; No. CXLVI., new series (*The India Office*). Rotomahana, and the Boiling Springs of New Zealand: photographic views, by D. L. Mundy, with notes by F. von Hochstetter, 1875 (*D. L. Mundy, Esq.*). Publications of the Cracow Physiographical Society, vols. 2-8 (1868-74), and 'Wykaz zdrojowisk Lekarskich Galicyi i Bukowiny'; by T. Zebrawski, 1862 (*The Society*). The Armed Strength of Denmark; by Captain W. S. Cooke, 1874 (*The Topographical Branch, Quarter-Master General's Department*). Statistics of Friendly Societies for 1873; Victoria, 1874 (*The Australian Government*). And the current issues of corresponding Societies, &c.

DONATIONS TO THE MAP-ROOM SINCE THE LAST COUNCIL MEETING OF APRIL 12TH, 1875.—47 sheets of the Survey of India (*Her Majesty's Secretary of State for India, in Council*). 24 sheets of the Ordnance Survey, on various scales (*through Sir Henry James, R.E., Director*). 10 sheets of the Topographical Atlas of Denmark (*through the Danish Minister, General J. de Bulow*).

The following paper was read:—

Travels in Great Tibet, and Trade between Tibet and Bengal. By
C. R. MARKHAM, C.B., F.R.S., Secretary R.G.S.

Of all the regions which remain to be explored, and fully brought to the knowledge of geographers, that of Great Tibet is among the least known and the most important. Until to-night no

account of this region, derived from the personal observation of an actual traveller, has been submitted to a Meeting of this Society, with the single exception of that of the Pundit who was sent by Colonel Montgomerie to Lhasa in 1865. It is indeed to that distinguished officer that we owe all our recent knowledge of Great Tibet; and one of the main objects of the present paper is to furnish some account of two more recent journeys which have been made in Tibet by Colonel Montgomerie's emissaries. But I am also able to bring to your notice the work of two Englishmen who explored portions of Great Tibet many years ago. The results of their labours have remained hidden in forgotten manuscripts until now; and as no European has since followed exactly in their footsteps, and they are consequently still the most recent European explorers of this region, their narratives continue to be as valuable and as interesting as if they had been written this year. The first of these forgotten explorers is Mr. George Bogle, who was sent by Warren Hastings to the Court of the Teshu Lama just a century ago. The second is Mr. Thomas Manning, a private traveller, who reached Tibet in 1812, and is the only Englishman who has ever visited its capital—Lhasa. Bogle and Manning are the only two Englishmen who have ever crossed the Tsampu.

It is necessary that I should first define the limits of the region to which the name of Great or Central Tibet applies. Our general knowledge of that country is still derived from the work of Du Halde and from the old maps of D'Anville, published 130 years ago, and based upon the famous survey of the Chinese Empire undertaken in the reign of Kang-hi, and commenced in 1708. Tibet was surveyed by two Lamas, who had been instructed and trained by Père Regis and other Jesuits at Peking. Their map extended from Sining to the source of the Ganges, and, when it was delivered into the hands of the Jesuit missionaries at Peking in 1717, it was found sufficiently accurate and consistent to enable them to construct from it a map of Tibet, from which D'Anville compiled those which still form the basis of modern delineations of the country.

But although the survey of Tibet was executed by native Lamas, the country was visited by Jesuit missionaries in the seventeenth and eighteenth centuries. In 1661 Fathers Grueber and Dorville set out from Peking, and reached Lhasa after a perilous journey of six months, and they eventually crossed a formidable pass into Nepal, and arrived safely at Agra. It is said also, that two other missionaries, named Hippolito Desideri and Manoel Freyre, set out from Goa in 1714, and reached Lhasa two years afterwards. But

their narrative, after leaving Ladak, breaks off abruptly. Father Horazio de la Penna, with eleven companions, has, however, a stronger claim to be remembered. He went from Peking to Lhasa in about 1717, at the very time when the Lama surveyors were at work; and, after remaining 30 years in Tibet, he died at Patan in Nepal, in 1747. The results of his labours, including much historical information, were published at Rome by Father Georgi, in 1762, including a Tibetan grammar; and this is the only source from which we derive some knowledge of the succession of the early Kings of Tibet.

It is from these, and less accessible Chinese sources, that Klaproth, Csoma de Körös, Hodson, and Henry Strachey, were enabled to define the limits and political divisions, and to give us a general idea of the topography of Tibet.

This most interesting region consists of the elevated plateau in rear of the first great chain of the Himalayas, which overhang the the Gangetic Valley; and Central or Great Tibet is that portion which is watered by the Tsampu, or the Brahmaputra in its upper course, and its tributaries. Tibet is divided into four great provinces; namely Kam, or Eastern Tibet, of which we know little or nothing, but which is believed to be cut up into deep gorges by the upper courses of the Yang-tse, the Cambodia, the Salwén, and the Irrawadi; Ari, or Western Tibet, which has been pretty thoroughly explored by our surveying parties; and the two provinces of *U* and *Tsang*, called *Utsang*, which form Great Tibet. The latter region is bounded on the west by the Marian-la, and the mighty Kailas or Gangdisri Mountain overlooking the sources of the Ganges and the Sutlej; on the south by the outer range of the Himalayas facing the Gangetic Valley, and containing the loftiest peaks in the world; and on the north by another lofty range, called by Hodgson the *Nyenchhen-thánglá* chain, which separates the country of villages and cultivation from the nomadic hordes on the still loftier plateau of lacustrine drainage between that chain and the Kuen-lun. The eastern boundary of *Utsang*, or Great Tibet, is not so clear. It can be ascertained by a scrutiny of the lists of towns given by Klaproth and D'Anville as situated in the provinces of Tsang and U, and of Kam or Eastern Tibet respectively, and by drawing a line of separation between them. Such a line places the eastern boundary of Great Tibet along the River Kenpu or Dihong, and includes the whole course of the Tsampu or Brahmaputra above the outer Himalayas within it. Great Tibet, or the two provinces of *U* and *Tsang*, thus has an extent of about 750 by 250 miles, and is a region the inhabited parts of which are from 10,000 to 14,000 feet above the

sea, bounded by lofty ranges to the north and south, with an inner range traversing it, and separating the watershed of the Ganges from that of the Sampu. It thus has two systems of drainage. The Sampu, or Brahmaputra, traverses the whole region from west to east, and receives tributaries from the Nyenchhen-thánglá Range on the north, and the northern slopes of the Himalayan outer and inner chains on the south. The rivers which rise between the inner and outer ranges of the Himalayas either flow, like the Arun (Kosi) and the Lopra-cachu* of D'Anville, through gorges in the outer chain to Bengal into the Tsampu, or into lakes between the two chains.

This grand plateau may in some respects be likened to the Collao of Peru lying between the maritime and eastern cordilleras of the Andes. Both sustain great flocks and herds; and in both a similar ruminant is used as the beasts of burden, the llama in Peru, and the sheep in Tibet. In Peru the Lake Titicaca, at 12,000 feet above the sea, is used as a means of communication by a line of steamers; in Tibet the Tsampu is a fluvial highway for merchants and their goods, also at a height of 12,000 feet above the sea; Tibet and the Collao of Peru alike abound in the precious metals, in salt and borax, but Tibet is more difficult of access. On one side the Collao has the maritime cordillera with passes leading to the Pacific coast, on the other the auriferous range of the Eastern Andes overlooking the rich alluvial plains of the Amazon. Great Tibet is more isolated. To the south the mighty range of the outer Himalaya can only be traversed by passes of extreme difficulty, and which are closed by snow during part of the year; while to the north a still more formidable journey over snow-clad plateaux and through fearful mountain gorges, which occupies several months, awaits the traveller who would pass from Tibet to China.

The people of Great Tibet, and their priestly rulers, have a strong claim upon the attention of European inquirers. It is to Chinese exclusive policy, and not to the Tibetans, that our ignorance of their country is due. In former days the intercourse between Bengal and Tibet was frequent and unchecked. The Tibetans are of Chinese race, and their language is allied to Burmese; but their Buddhist religion, their extensive literature, their written character, and their prevailing modes of thought, are all derived from India, and prove that for centuries there must have been an uninterrupted ebb and flow of commerce through the now closed passes of the outer Himalayan range. The monasteries

* Shubanshi, in Assam.

in every part of Tibet, even the most inaccessible, with their armies of monks, the innumerable banners and monuments on every pass, all point to ideas which had their origin and long prevailed in the valley of the Ganges. The belief which forms the basis of Tibetan polity is of Indian origin too, and the Dalai Lama himself is an incarnation, in a certain sense, of a Hindu prince, the holy and sinless Sakyamuni. More strictly he is the incarnate Bodhisattva Padmapani, or Avalokitesvara, the heavenly representative of Sakyamuni. The Dalai Lama is the ruler of the province of U, with his capital at Lhasa; but an equally sacred incarnation rules over the Province of Tsang, namely, the Teshu Lama, whose capital is at Shigatze, and who resides in the adjacent palae of Teshu-lumpo. The Teshu Lama is an incarnation of the great Tibetan reformer Tsonhhapa, who flourished in the fourteenth century. The Tsampu River has been described as the boundary between the two provinces of the Dalai and the Teshu Lamas, U being to the north and Tsang to the south. But this is not exactly correct. Bogle mentions Chan-nam-ling and other towns north of the Tsampu as part of Tsang, while an examination of the lists of towns given by Klapproth and D'Anville shows that several towns reckoned as being within the province of U are south of the great river.

The Lamas say that the intercourse between Bengal and Tibet fell off after the Muhammadan conquests in India, and it was still further interrupted by Chinese interference, and by the turbulent chiefships of Nepal and Bhutan on the outer slopes of the Himalayas. But there was nothing in the state of affairs to prevent a renewal of the old intercourse between Bengal and Tibet, and the establishment of friendly commercial relations, and this was perceived by the great statesman who established and consolidated our Indian Empire. Warren Hastings, the first Governor-General, and the only one whose name is a household word among the natives of India, lost no opportunity of extending the influence of the East India Company, and improving the condition of the people under his rule. Not the least important of his measures was the re-establishment of direct intercourse with Tibet, on occasion of the mediation of the Teshu Lama after the Bhutan War. He resolved to despatch an envoy across the Himalaya, one on whose abilities and discretion he could rely. The great statesman had trained a school of rising administrators, such as Kynynmond Elliot, whose early death in Orissa he so deeply mourned; Cleveland of Bagulpur, the first to tame the wild Sonthals, and whose name is still remembered among them; George Bogle, and others of equal mark.

The choice of Warren Hastings fell upon the young secretary of the Board of Revenue, George Bogle, who set out for Tibet in company with Dr. Hamilton, an assistant-surgeon on the establishment, and an officer of the Teshu Lama named Paima; and after some detention in Bhutan, the travellers reached Pari-jong. This is at the pass at the head of the Chumbi Valley, which divides Bhutan from Tibet, separating the deep and wild gorges, well wooded and fertile, which slope down to the Bengal plains from the bleak plateau of the Tibetan side. In front were the grassy uplands patched with snow on which no Englishman had ever before set eyes, and on his right towered the sacred peak of Chumulari, 22,944 feet above the sea. Mr. Bogle, accompanied by Dr. Hamilton, and their Tibetan companion Paima, set out from Pari-jong, and entered Tibet on the 24th of October, 1774. This mission was politically important, and its results were of great geographical value. I think, therefore, that a brief reference to Mr. Bogle's discoveries, and to some of the incidents of his journey (time will not allow of more), can scarcely fail to be interesting to the Meeting.

Four days after leaving Pari, Mr. Bogle discovered two large Alpine lakes, called Shamtzo and Calutzo (the first is called Ramtchieu by Turner, the second is not named by him), connected with each other by a stream. He also traced the river flowing out of the Calutzo Lake, and found that to be a tributary of the Brahmaputra, and identical with the Penanang-chu. The name of the second lake and the direction of the outlet are entirely new geographical facts. The lakes were half frozen over, and well stocked with ducks and other wild fowl. Antelopes, *kyang*, and hares were also seen; and it was observed that animal life of all kinds was much more abundant on the bleak uplands of Tibet than in the wooded gorges of Bhutan.

But here a slight difference occurred between Mr. Bogle and his Tibetan friend Paima. The British Envoy was naturally anxious to have some sport, while the Tibetan looked with horror on acts of bloodshed, especially when actually within sight of the sacred peak of Chumulari. Paima strongly objected to shooting, insisting that it was a great crime, that it would give much scandal to the natives, and that it was particularly unlawful within the liberties of Chumulari. Mr. Bogle had many long discussions with him on the subject, and tells us that "they were supported on the side of the Buddhist by plain common-sense reasons, drawn from his religion and customs; on the side of the British Envoy by those fine-spun European arguments which serve rather to perplex than to con-

vince." The latter gained nothing in argument; but at length a compromise was arranged. Mr. Bogle agreed not to shoot until they were fairly out of sight of the holy mountain, and Paima consented to suspend his prohibition in solitary and sequestered places.

The march down the valley of the Penanang-chu and across the inner chain of the Himalayas to the Tibetan towns of Giantze and Painom has been described by Turner, who followed along the same road a few years afterwards. But Turner never went beyond Teshu-lumpo, while Mr. Bogle crossed the great river Tsampu, near Shigatze, at a point where it is about the width of the Thames at Putney. Having drunk some of its water, washed his hands and feet, and thrown a rupee into it, he embarked in the ferry-boat, of which there were several at this place—well-built, flat-bottomed barges, about 25 feet long, consisting of a flooring of thick planks and perpendicular sides, about 4 feet high, with an opening at either end, cut down to 2 feet, the whole bound together with bars of iron, and painted white. There was a large oar on each side, pulled by two men and pushed by another facing them, while a woman helped, by hauling on a line made fast to the end of the blade. The steering is managed by a large oar from the stern. The boat carried over twenty-three persons, seven horses, and fourteen asses, besides baggage. The river is not rapid at this place, and great herds of bullocks and flocks of sheep were waiting on each side for a passage. In the summer a lighter kind of boat is used for transporting goods, made of hides, with ribs of willow-poles, about 8 feet long by 4 broad. Mr. Bogle saw many of them on the bank, keel up, and some, with an end raised, serving as habitations for the boatmen.

The flocks of sheep are used as beasts of burden. Some were coming from the wild and desolate country to the north, laden with salt: others were returning from Giantze with cargoes of barley. Mr. Bogle describes them as large animals, with horns extending horizontally. He met flocks of 1200 sheep, each carrying two bags of grain weighing 20 to 25 lbs. They were very obedient to the shepherd's call, and if any of them happened to stray they were easily brought back by the shepherd's dog.

After crossing the Tsampo, Mr. Bogle marched up the valley of the Shiang-chu to Namling, and went thence to a small palace, called Dasheripgay, in a gorge a few miles beyond Namling, where the Teshu Lama had resided for two years, owing to the prevalence of small-pox at Shigatze.

The Envoy describes the palace, the retinue, and the ceremonies and receptions with graphic minuteness; and he formed a deep and lasting friendship for the sacred person of the Teshu Lama himself

which had a temporarily important influence on British interests, and, if the two men had lived, might have led to permanently good results. The Lama was then about forty years of age. Although endowed with a portion of omniscience and many other divine attributes, his Holiness accommodated himself to the weakness of mortals, and endeavoured to make himself loved rather than feared. The expression of his countenance was smiling and good-humoured, his disposition open, candid, and generous. He was extremely merry and entertaining in conversation, and told a pleasant story with much humour and appropriate action. Mr. Bogle describes the ceremonies of blessing the people, the religious services, and the grand procession from Dëshripgay across the Tsampu to Teshu-lumpo, when the Lama returned to his capital. He was on most intimate terms of friendship, not only with his Holiness, but with his young nephews, the Pyn Kushus, and his nieces, the nuns, with whom he had a great deal of laughing and merriment. During a week in March Mr. Bogle and Dr. Hamilton went to a country seat of the Pyn Kushus, on the northern bank of the Tsampu, whence they obtained a magnificent view of the windings of the river and adjacent mountains, and where their hosts exerted themselves to amuse them by hunting-excursions, and to please them by the most cordial hospitality; for the Pyn Kushus made no scruple about shooting when by themselves, and showed Mr. Bogle some good sport with greyhounds, got up matches with bows and matchlocks, and a grand hunt after musk-deer. But they had some fear lest they should get into a scrape with the Teshu Lama if these transgressions were mentioned to him. On the whole, nothing could exceed the cordial friendship which sprang up between Mr. Bogle and the Teshu Lama's family.

When the Envoy finally left Teshu-lumpo on his return to Bengal, on the 8th of April, 1775, he tells us that he took "his last farewell of the Lama with an aching heart, having become strongly attached to him for his civilities, his bewitching manners, and his amiable character." Nor was this friendship of a fleeting kind. A correspondence was kept up between the two, after Mr. Bogle had returned and was appointed Collector of Rangpur. The letters from the Teshu Lama (one of which is on the table) were written in the curious Tibetan character, on paper made from a species of *Daphne*, which grows in Nepal and Bhutan. At Rangpur, Mr. Bogle established a fair, with special immunities and advantages for the Tibetan and Bhutanese merchants, and encouraged the intercourse between Tibet and Bengal by every means that his official position gave him, and with the warm support of the Governor-General.

Unfortunately the good Teshu Lama was induced by the Emperor of China to visit Peking, where he died of small-pox; and in the same year, 1872, Mr. Bogle died at Rangpur. There can be no doubt that the way had been paved for opening the passes into Tibet for traffic and free intercourse. But the premature loss of the negotiators was a death-blow to the bright hopes that were justified by their friendship. Besides his journal and letters, Mr. Bogle drew up valuable reports on the trade of Tibet, on its religion and politics, and on the people. On his death all his papers were packed up and sent to his friends in Scotland, and they have remained untouched and unutilized, in a house in Ayrshire, until the present year. It is true that Warren Hastings did not lose sight of his plans respecting Tibet; he sent a second embassy under Captain Turner in 1783, which reached Teshu-lumpo, following Mr. Bogle's route exactly, but not going beyond that point. The good Lama was then dead, his successor was an infant, and the only result of the mission was the publication of Captain Turner's interesting narrative in 1800.

The death of the Teshu Lama and of Mr. Bogle, and the retirement of the great and enlightened statesman who placed them in communication with each other, were the unfortunate events which put an end to the friendly, commercial, and diplomatic intercourse between the two countries. And there were evil influences of another kind at work. In Mr. Bogle's conversations with the Teshu Lama there is frequent allusion to the turbulent and aggressive policy of the Gorkha Raja of Nepal, and to the hindrances he was placing in the way of commercial transactions between India and Tibet. At last the Nepalese army invaded the province of Tsang, and plundered the monastery of Teshu Lumpo. This led to intervention on the part of China, and in 1792 a great Chinese army marched into Tibet, utterly defeated the Nepalese at Tengri-maidan, drove them across the Himalaya, and dictated a humiliating peace within 20 miles of Kathmandu. From that time the political influence of China in Great Tibet has been paramount; and although the internal administration is not interfered with, Chinese troops remain in occupation, and the exclusion of foreigners is enforced by officially watching the Bhutan, Sikkim, Nepal, and Ladak passes.

It has been said that the watch is so strict as to render it impossible for any Englishman to have passed into Tibet since 1792. But this is not the case, as is proved by the fact, that in 1811, Thomas Manning actually reached the city of Lhasa, although it is true that he is the only Englishman who ever succeeded.

The journey of this adventurous traveller has never been described, and his manuscript narrative has remained unused in the hands of his family ever since. This is the second English traveller to whose labours I desire to call the attention of the Meeting.

Thomas Manning was a mathematical tutor at Cambridge, who, after leaving the University, brooded over the mysterious empire of China, until at last he resolved to undertake a voyage to Canton to study the language, and then to attempt the exploration of the unknown interior. Manning was the friend and correspondent of Charles Lamb, who, during 1803, frequently urged his friend to give up the intended visit to Independent Tartary, as he called it. "The reading of Chaucer has misled you," writes Lamb. "Do not credit his foolish stories about Cambuscan and the ring, and the horse of brass. Believe me, there are no such things. 'Tis all the poet's invention. A horse of brass never flew, and a king's daughter never talked with birds. These are all tales. Pray try and cure yourself. Take hellebore. Pray to avoid the fiend. Read no books of voyages, they are nothing but lies, and O, do not go to Independent Tartary!" But all remonstrances were in vain, and armed with a letter of introduction from Sir Joseph Banks, he sailed for Canton in 1806. After remaining there for some years, studying the language, he proceeded to Calcutta, whence in September 1811, he set out on his adventurous expedition to Tibet. It would appear that he applied to be employed officially as an Envoy, for when the Chinese authorities at Pari hinted at overtures for opening commerce between Tibet and India, he exclaims, "I cannot help feeling what fools the Company are to give me no commission, no authority, no instructions. Fools to neglect an opportunity they may never have again." Manning was obliged to go as a doctor, and in disguise, and of course his difficulties were thus multiplied tenfold. Fortunately he encountered a Chinese General on the frontier at Pari-jong, who was civil to him, and with whom he travelled to Lhasa. From Pari to Giangtæ he followed the route taken by Bogle and Turner, but there, instead of turning west to Teshu-lumpo, he crossed the inner range of the Himalaya, and reached the famous ring-shaped lake of Palti or Yamdok-chu.

Manning's journal is a personal narrative, containing many incidents of the road, and is especially valuable for its account of Lhasa and of the Dalai Lama; but it contains little geographical information; and if it had not been for the accounts of Bogle, Turner, and the Pundit of 1865, it would not be easy to make out

his route. He skirted along the Yamdok Lake for several days, and gives the Chinese name for it as *Haitu* (little sea). But he does not appear to have known the map of D'Anville, or the peculiar form of the lake with its large island as there delineated. He merely says, "from the opposite margin of the lake rose diminutive mountains in a continued chain." He further says that the water of the lake is said to be very unwholesome, and that it is not used for drinking. Manning crossed the Tsampo in a large and good ferry-boat, and reached Lhasa without further adventures. The Dalai Lama was then about seven years old, and the traveller was much impressed by the refined beauty of his Holiness. He had the simple and unaffected manners of a well-educated princely child. His face was poetically, even affectingly, beautiful, and he was of a gay and cheerful disposition; his mouth perpetually unbending into a graceful smile, which illuminated his whole countenance. Mr. Manning's narrative of his stay at Lhasa is full of interest. He intended to have pressed on to China by way either of Sining or Bhatang, but eventually he was obliged to return to India by the road he came, finally leaving Lhasa on the 19th of April, 1812.

Thomas Manning was the last Englishman who ever entered Great Tibet; and only two Europeans have since been at Lhasa, namely, the Abbé Huc and Gabet in 1846. Manning's journey shows that, even after the Chinese campaign of 1792, Europeans could pass from Bengal, through Bhutan, to Lhasa; and that the difficulty of recovering the ground gained by Warren Hastings and Bogle is not insuperable. But since 1812 the work has been confined to enquiries and to visiting the heads of passes—so far as Englishmen are concerned. Csoma de Kőrös did much valuable service in this way. Mr. Hodgson, during his long residence at Kathmandu, collected a mass of information respecting the geography, ethnology, trades, languages, and literature of Tibet. Captain Pemberton, during his mission to Bhutan in 1838, and Mr. Eden, in 1864, made further additions to our knowledge, which has been still more recently extended by the investigations of Mr. Edgar. But the list of those who have actually reached the head of the passes leading to that forbidden land, which was formerly explored by Bogle, Turner, and Manning, is very brief. First among them are Dr. Hooker, the President of the Royal Society, and the late Dr. Campbell, who reached the Donkia and Kongra-lama passes (18,500 feet above the sea), leading from the head of the Tista Valley in Sikkim, to Tibet, in 1849. Dr. Hooker also visited two passes leading from Nepal. In 1870 Captain Chamer went as far as the Donkia Pass; and in 1871 our associate, Mr. W. J. Blanford,

accompanied by Captain Elwes, explored the passes leading from Sikkim to the Chumbi Valley, and visited those of Donkia and Kongra-lama, leading to Tibet. But no one, since the return of Manning in 1812, has ever reached Pari-jong, at the head of the Chumbi Valley, the pass most used and most practicable, and by which all the three English explorers entered Tibet.

This total cessation of intercourse, either diplomatic or through English travellers, gives the arrangements of Colonel Montgomerie for exploring Tibet, by the agency of natives, an importance which can scarcely be over-estimated. Three journeys of Colonel Montgomerie's Tibetan emissaries have been completed, and the results worked out; and one, that of the Pundit of 1865, has already been discussed at one of our Meetings. This explorer traversed the Nepal pass of Kiring, first sighted the Tsampu at Tadum Gumpa, and travelled down its valley to Lhasa. At Talla Lobrong the Pundit found the height of the Tsampu Valley to be 14,187 feet above the sea; at Shigatze, 11,822, so that there is a rapid descent. From Janglache, an important place on the Tsampu (or Narichu) mentioned by Bogle, to Shigatze, a distance of 85 miles, merchants and their goods are conveyed down the river in boats. The Pundit also describes the Yamdokchu (Palti) Lake, visited by Manning, as being 45 miles round, but only 2 or 3 wide, because it encircles a large island with hills rising 2000 or 3000 feet above its surface, as delineated on D'Anville's map. But the Pundit, in contradiction to Manning, says that the water is sweet. The Pundit was at Lhasa from January to April, 1866, and fixed its height at 11,500 feet above the sea. On his return he traversed the whole length of the valley of the Tsampu from Chusuljong (11,300 feet) to Tadum (14,187 feet), and thence 140 miles higher up to the Marian-la Pass, which separates Tsang from Ari, or Great Tibet from Little Tibet.

Colonel Montgomerie's second Tibetan explorer set out in 1871. He crossed a pass in eastern Nepal, called Tipta-la (Wallangchoon), which had been visited by Dr. Hooker in 1848, reached the Arun river, a tributary of the Kosi, and after traversing two other passes, discovered a large lake, 20 miles long by 16, called Chuntodong, 14,700 feet above the sea; which he mentions as part of the boundary between Sikkim and Tibet. He then crossed the Lagulung Pass (16,200 feet) over the inner Himalayan range, and reached Shigatze. All this was new work; but the most interesting part of the journey was that from Shigatze back into Nepal, when he crossed the great plain of Tengri-maidan (13,860 feet), where the Nepalese were defeated by the Chinese army in 1792.

Thence he followed a trade-route down the Butia Kosi, through a fearful gorge. The road crosses the river no less than 15 times, 3 by iron suspension bridges and 11 by wooden bridges, 24 to 60 paces long. At one place the sides of the gigantic chasm were so close that a bridge of 24 paces would span it. Along the perpendicular wall of rock a path is supported on iron pegs let into the face of the rock. The path is of stone slabs covered with earth, only 18 inches wide, a third of a mile long, and 1500 feet above the roaring torrent. Such are the stupendous difficulties which have been overcome in establishing communications between Nepal and Tibet.

The third explorer, a young Tibetan, who had been thoroughly trained for the work, was dispatched by Colonel Montgomerie, in 1871, to explore the unknown regions north of the Tibetan watershed of the upper Brahmaputra or Tsampu. He reached Shigatze in November, and having purchased 50 sheep to carry the baggage, he crossed the Tsampu at the point where Mr. Bogle had been ferried over in 1774, and followed Mr. Bogle's route to Namling, on the right bank of the Shiang-chu river. It is interesting to find that, on more than one point, the long-forgotten journal of Mr. Bogle furnishes evidence of the accuracy of Colonel Montgomerie's explorer. Thus the Chom-gompa, where, according to the explorer, there are 100 nuns, is in the very spot where Bogle stopped with the Teshu Lama, and was visited by nuns.

The explorer advanced north from Nam-ling with the intention of crossing the range, called by Hodgson the *Nyenchhen-thanglá*, and of exploring the great Namcho Lake—the Tengri-nor of D'Anville and the Chinese surveyors. The range was crossed by the Khalamba-la Pass, 17,200 feet above the sea, on the 8th of January, 1872. In this mountain-range there are numerous hot springs, and two Geysers, which throw up jets of water to heights exceeding 60 feet. The water, in falling again, freezes and forms pillars of ice up to the full height of the jet. These pillars are 30 feet in circumference, and the water within them, which is thrown up with great noise and violence, stood at a temperature of 183°, the boiling-point at that elevation being only 183.75°.

The great lake to the north of the mountain-range is called Namcho, or the "shy lake" (Tengri-nor of our maps), and was found to be 50 miles in length by from 16 to 35 miles broad. To the south it is bounded by the *Nyenchhen-thanglá* Range, consisting of snowy peaks flanked by large glaciers, and culminating in the magnificent peak of *Jáng Nyenchhen-thangla*, which is probably more than 25,000 feet above the level of the sea. The range was traced

for more than 150 miles, running in a north-easterly direction. To the north of the lake the mountains are not so high. Between the Nyenchhen-thangla and the Kuen-lun Ranges the lofty plateaux are inhabited by nomadic tribes and bands of robbers; there is no cultivation, and the monasteries are the only fixed habitations. The drainage is into the salt lakes at the lowest levels of this region, the chief of which is the Namcho or Tengri-nor.

The Namcho Lake is considered sacred; and although at such a very great distance from inhabited districts, and at so great an elevation above the sea, there are several permanent Buddhist monasteries on its banks and on islands which are visited by large numbers of pilgrims. The lake is 15,500 feet above the level of the sea.

The explorer, making the monastery of Dorkiá, on the western shore, his head-quarters, made the complete circuit of the lake, and found that it had no outlet. The largest influent is the Nai-chu, a very large stream coming from the east, about 40 paces across near the mouth.

After returning to Dorkiá, the explorer once more set out on the 11th of February, 1872, and a few days afterwards he made a short excursion to the northward, and discovered another smaller lake, called Bul-cho.* But on the 18th, as the travellers were about to start, a band of sixty armed robbers arrived on horseback, and, in spite of their entreaties, took away all their clothes and provisions, leaving them nothing but the instruments. After much begging, the robbers gave them back a piece of cloth each, with two sheep and two bags of food, but added, that if they gave any more trouble they would be killed. The explorer had intended to have made his way from the Namcho Lake to China; but after the robbery he was obliged to march as quickly as possible in the direction of Lhasa, where they were likely to get into inhabited ground soonest. After suffering many privations, the explorer recrossed the mountains by the Dhok-la Pass, and reached Lhasa on the 9th of March, whence, after a long and difficult journey, he returned to the head-quarters of the Great Trigonometrical Survey. His route-survey extends over 320 miles of a hitherto entirely unknown country; the chief discoveries being the position, size, and elevation of the great Namcho Lake, and the height and direction of the Nyenchhen-thangla Range.

Thus, through the labours of these three brave and intelligent native explorers, Colonel Montgomerie has furnished us with exact

* Bul means borax. It is the chief source of supply for Lhasa.

geographical knowledge respecting three of the passes between Nepal and Tibet—of Kirong, the Nilam-la, and Tipta-la; respecting the whole valley of the Tsampu from the Marian-la Pass to Chasul-jong; the famous lake of Palti or Yamdok-chu; the position of Lhasa; the great chain forming the northern boundary of the basin of the Upper Brahmaputra; the Namchu Lake, and the interior drainage of Northern Tibet.

This information, combined with the investigations of Hodgson and others, and the personal observations of Bogle, Turner, and Manning, enable us to form a sufficiently accurate idea of the trade-routes leading from India to Great Tibet, up the gorges of Bhutan, Sikkim, and Nepal; and of the physical features of the great plateau in rear of the Himalayan ranges.

Commencing from the east, the first trade-route is through the country of the Towang Bhuteas, who are directly subject to Lhasa, down to Udalgori in Assam. Next we are told by Captain Pemberton, who traversed nearly the whole of Bhutan from east to west in 1838, that there are several passes leading from Tibet into the valley of the Manass, the traders finding their way to Dewangiri at the foot of the hills, and afterwards repairing to a great annual fair at Hazu, opposite Gowhatty in Assam. Then comes the pass of Pari-jong, by which Bogle, Turner, and Manning found their way from Bhutan into Tibet, and whence Tibetan traders proceeded by Paro and the Baxa Dicar to the fair established by Mr. Bogle at Rangpur. At Rangpur duties were abolished, and buildings were erected for the convenience of the merchants, as well as of their animals and goods, the annual cost to Government being only 70*l*. The Bhutan caravans arrived in February and March at Rangpur, returning in May and June; merchants were thus attracted to Rangpur in great numbers, and the excellent arrangements for the benefit of trade, which were made by Mr. Bogle, continued for half a century after his untimely death. But Bogle's arrangements were neglected; and since 1834, when the Government aid was discontinued, the Rangpur trade has almost entirely ceased. At the Assam fairs, gold-dust, salt, musk, cow-tails, woollens, and horses are exchanged for lac, madder, silk, cloth, and dried fish.

The eastern Sikkim Passes leading into the Chumbi Valley, called Jelep-la, Guatin-la, Yak-la, and Cho-la, have recently been examined by Mr. Blanford and Mr. Edgar. They are rarely interrupted by snow for many days, and form an alternative route to that through Bhutan, up the Chumbi Valley to Para-jong. Further north is the Tankrala Pass, 16,083 feet above the sea, which is the most snowy pass in Sikkim, and the most difficult of access. The

Donkia-la, at the head of the eastern branch of the Tista, is 18,466 feet above the sea, and the Kongralama Pass at the head of the western branch is lower (15,745 feet). They are used by Tibetan herdsmen, who bring their cattle to graze in Sikkim, and by the people in the upper valley of the Tista branches, the Lachin and Lachung, who twice a year carry wood into Tibet, and bring back loads of salt in return.

The passes from Nepal into Great Tibet follow the tributaries of the Kosi River. The two easternmost were visited by Dr. Hooker, and one, the Tipta-la, was crossed by Colonel Montgomerie's second explorer. The more westerly pass, by the Butia Kosi, was used by the same explorer on his return to India through Nepal. Its appalling difficulties have already been alluded to, and this is not the route adopted by the Chinese army in 1792, when it advanced upon Kathmandu. The easier military pass to the westward is closed to commerce by the Chinese officials. It leads by Jongh-a-jong to Kirong.

Once the intercourse between Bengal and Tibet by means of these passes was frequent, and it should certainly be the aim of our rulers to restore it. The Tibetans have always shown themselves desirous to promote such intercourse, and there is certainly no reason why the policy of permitting the passes to be closed through the jealous and selfish exclusiveness of the Chinese Government should be continued. Bogle enumerated the products of Great Tibet as consisting of gold, musk, cow-tails, wool, and salt. He said that the genius of the Tibetan Government was favourable to commerce, and that no duties were levied on goods, so that, in his time, many foreign merchants had settled in Tibet. Cashmirian traders had establishments at Lhasa and all the principal towns of the country, and the Gosains, or trading pilgrims of India, resorted to Tibet in large numbers. Their trade was confined to articles of great value and small bulk, and they travelled without ostentation, and often by paths unfrequented by other merchants. The Kalmuks annually came to pay their devotions to the Lamas, bringing camels laden with the furs and hides of Siberia. The Bhuteas brought the products of Bengal and Assam, while the Chinese had established themselves in great numbers at Lhasa, and carried on a lucrative trade in the teas, porcelains, and brocades of their native country. The merchants of Bengal and Bahar sent their goods by the passes of Nepal and Bhutan. They consisted of broadcloth, indigo, pearls, coral, chank, spices, tobacco, sugar, white cloths, satins, and the returns were in gold, cow-tails, and musk. It was this trade which Warren Hastings did so much

to foster, and which Bogle, as collector of Rangpur, encouraged by the establishment of a fair, and the grant of privileges and immunities.

But all the ground gained by these able administrators in the last century has since been lost. Mr. Edgar, the Deputy Commissioner of Darjiling, tells us a very different story in 1874. Owing to the insecurity of the roads, the trade between China and Tibet is now much less considerable than was formerly the case. The chief article is tea of a coarse description and unpleasant flavour, which sells at Lhasa for eight annas the pound ; and so totally have the English neglected the Tibetan markets, that actually Chinese tea is imported through Tibet into the British district of Sikkim for the use of the inhabitants, although tea is grown on the spot. European and Indian goods mainly reach Tibet through Nepal and Ladak, and consist of broadcloth, cottons, corals, pearls, tobacco, opium, and some rich stuffs. The exports from Tibet by these channels are blankets, musk, cow-tails, borax, ponies, gold and silver, but no wool. There is also some local trade with Sikkim and Bhutan. The great wealth of Tibet lies in its flocks and herds, and enormous quantities of wool and ghee might be imported into Bengal at cheap rates, if good practicable passes were once opened. The route proposed by Mr. Edgar is by a bridge across the Tista in Sikkim, and a road thence to the Cho-la Range.

In the present paper I have endeavoured to bring to your notice the valuable results of the journeys of Mr. Bogle and Mr. Manning, which have only now been brought to light, and to give a brief account of the recent labours and discoveries of Colonel Montgomerie's explorers in Great Tibet. These accounts embrace part of a very important subject, namely, that of the re-establishment of friendly commercial intercourse between Tibet and Bengal, a subject which will most assuredly receive attention in the near future. One thing is certain, that any steps that may be taken to open diplomatic intercourse with the Teshu and the Dalai Lamas, or to promote trade through the Himalayan Passes, cannot fail to add to our stock of geographical knowledge.

Colonel T. G. MONTGOMERIE said that for some time the officers of the Trigonometrical Survey in India were employed in the North surveying the frontier, and naturally the great regions beyond attracted their attention ; but the Government of India were anxious that nothing should be done to endanger those connected with the Survey. The officers, however, endeavoured to acquire as much knowledge as possible of the countries beyond the mountains, and it became known to him personally that the longitude of Yarkand was not what it had been represented by Humboldt, and in the great surveys

connected with China. Consequently, when the survey on the frontiers approached completion, arrangements were made for carrying on explorations beyond. One man was sent to Yarkand. He made a route survey, and succeeded in fixing the position of that place. His figures had since been tested by European explorers and skilled observers, and were found to be correct. The next step was carried out by Mr. Johnson, who was employed on a survey close up to the frontier at various heights, from 15,000 feet to 22,000 feet above the sea. He crossed the Kuen Lun range, and was the first European who had succeeded in passing from the plains of the Punjab to the basin of Eastern Turkistan. He found the Himalayas to be 400 miles in width at apparently their narrowest part. It was then found impossible to employ Europeans to make the explorations that were desired, and a number of natives were therefore trained to do the work. When he (Colonel Montgomerie) required some one to make a journey into Tibet, he selected a man who was either a semi-Tibetan, or had friends who were in the habit of travelling in that difficult country. Such a man was regularly trained to observe the stars and to make route surveys, and he was then sent out upon a trial trip over ground of which the maps had not been published, but existed in manuscript, so that his work could be tested. After several such trials, if his results were correct, he was sent into unknown territory, starting from one known point and closing upon another known point. If he performed that journey satisfactorily he was given charge of a longer expedition. The chief Pundit, who had been referred to in the paper, carried a route survey down the whole length of the Sangpo (Tsampu) or Brahmaputra River. Up to the year 1863 the upper waters of many of the large rivers of India were still unknown. A considerable portion of the Indus was unknown. It was supposed that the main branch ran past Garo or Gartok, but it was not known whether there was a second branch or not. Neither was it known how the Brahmaputra, or the Upper Kurnali or the Kosi River ran. A great deal had since been done, but much still remains undone. The upper course of the Indus was now known, but a portion, about 180 miles, between the Astor Valley and Torbela near Attok, had not yet been traced. Still greater ignorance prevailed about the last 350 miles of the Brahmaputra, for it was not certainly known whether the Sangpo was really the Brahmaputra or not. Although the head waters rose not far from British territory, and the lower part of the river flowed through British territory, there was still an unknown portion of about 350 miles. Explorations had now been carried on throughout every part of the frontier of India, from Kelat to Cabul, then across the Hindu Kush, down to Fyzabad, up the Oxus, across the Pamir Steppe to Kashgar, from Kashgar to Yarkand, round to Rudok, and down to Lhasa. Only a few days ago he heard of the return of the chief Pundit, who had been lately in Eastern Turkistan. He had crossed over from Ladak by a northerly route, passed through a succession of gold-fields, came down upon the Brahmaputra near Lhasa, travelled down the river for some distance, and came out at Udalgiri in Assam, passing through Towang. Now that the Geographical Society threatened to make an end of Africa, and the Arctic regions were likely to be thoroughly explored before long, there was nothing left for them but the happy hunting-ground to the north of India. If any enterprising gentleman wished for a trip in a Rob Roy canoe, he might put himself on the Brahmaputra at the Mariamla, near the Mansarowar Lake, and pass down through the length of Middle Tibet. He would thus have an opportunity of exploring the unknown 350 miles. Another trip might be taken from Little Tibet, down the Indus, to 'Tobela and Attok. The large district extending from Lhasa to Kashgar, and from Kashgar across the desert of Gobi, right away to China, was still an unknown land, and offered a large field for future geographical enterprise.

The PRESIDENT reminded the meeting that geographers were very much indebted to Colonel Montgomerie for having originated the institution of native explorers, which was one of the most valuable agencies for the acquisition of geographical knowledge that had ever been established in India. With reference to the suggestion that some one should descend from Lhasa to Sudiya in a Rob Roy canoe, it must be remembered that in a short space of 300 miles the river falls 10,000 feet. No doubt there were some tremendous rapids and cataracts in that interval, so that it was by no means certain that a canoe would reach Sudiya in safety. He, however, echoed Colonel Montgomerie's hope that the routes would be explored. But there were other questions than those of mere geography connected with this subject of Tibet, such as that of the trade railways between India and the countries conterminous with it on the north-east; and the Society was fortunate in having present two ex-Governors of Bengal, Sir George Campbell and Sir Cecil Beadon, who had carefully studied the question of trade routes.

SIR GEORGE CAMPBELL said although Mr. Markham had not travelled in Tibet, his enquiries at home had been as effectual as the work of many travellers. It was a remarkable instance of what might be done by energy and zeal, for he had succeeded in unearthing narratives of travel which had remained unknown for nearly a hundred years. Something was previously known of Captain Turner's journey to Tibet; but of Mr. Bogle's journey, all that we knew was that it had been made. It was supposed that the record of it had been entirely lost, but it now appeared that it had been kept, and would be given to the world. At the same time Mr. Markham had obtained the history of a journey by another traveller, Manning, in 1812, of whose very existence most Asiatic geographers were absolutely ignorant. He thought hardly sufficient attention had been paid to the very minute and particular account of routes between Lhasa and China, which was furnished by the French missionaries, Huc and Gabet. It was sometimes the fashion to discredit their statements, because they were, no doubt, a little credulous about the stories that were told to them; but he had read not merely the short English abstract of their travels, but a much fuller French edition, and compared it with the information which had since been obtained, and the impression left upon his mind was that, as regards the facts that came within their own observation, their accounts were most reliable in every way. They were not scientific men, but they gave correct descriptions of the routes they travelled from the north of China to Lhasa, and from Lhasa to southern China. Considering the precise information which those missionaries afforded, and the results which had been obtained from the journeys of Colonel Montgomerie's natives, it might be said that a very good knowledge was now possessed of the geography of the routes between India and China by way of Tibet. He had taken great interest in the subject of trade between India and Tibet, and believed that the Tibetans themselves had really very little objection to trading with the English, the difficulties that were placed in the way arising solely from political considerations on the part of the Chinese. Englishmen knew something of protection and monopoly, and it, therefore, was not very unnatural that Chinese protectionists should insist on protecting their trade in tea. It had been said the want of enterprise on the part of British tea-growers was so great, that the Chinese tea was brought down for sale over the hills to the British dominions, but that was a mistake. In Bhotan, Sikkim, and Kashmere, brick-tea was still sold in small quantities, but that arose simply from the habits and customs of the people. For certain ceremonies brick-tea was regarded as necessary, and must be had, whatever price was paid for it. Assam tea had, for most purposes, superseded Chinese tea in all the countries to which it had access, but the Tibetans had placed an embargo upon it, and until that embargo was removed, Assam tea could not

find its way across the hills. It appeared to him that however much might be learnt of the Towang route, there could be little doubt that the route by way of Darjeeling was clearly the best to Tibet. A road might be made, as he hoped it would, into Sikkim, and so into the frontiers of the Choombee Valley, which was the outlying post of the Tibetans, running between Bhotan and Sikkim; but Europeans, and even Hindoo and Mahometan merchants, were not allowed to enter by that route, being compelled to go round by way of Nepal. He could not greatly wonder at the exclusiveness of the Chinese, for they had got into trouble on many occasions when they had admitted Europeans into their country; but that repugnance must be overcome by great consideration being shown towards them, and by not attempting to back up, in all quarrels and all demands, every European adventurer, whoever he might be, who tried to penetrate into the country. Full and equal justice should be done to the inhabitants, so that when a man went among them and behaved in a manner that was creditable to the British nation, they might receive him without fearing that another who might be violent and unjust would be supported in his violence and injustice. The Tibetans and Bhotaeas were active and good traders, and the only difficulty in the way of facilitating intercourse was the political one. As long as the British in India were a distant power the Tibetans were not afraid, and permitted free intercourse to take place; but since so many states had been absorbed, and the British power had come close to them, they were naturally a little afraid, and pursued the policy of keeping the English at arm's length. They would not even carry on any correspondence with the English, and returned unopened any letters that were sent to them. When the softening influence of a just and considerate policy had reached the Tibetans, and diplomacy had produced an effect upon the Chinese, no doubt a very considerable trade would be established, and residents in India would be able to take pleasant and healthy trips beyond the Himalayas. Now that so many difficulties had been interposed in the way of communication with China in another direction, it was very important that every effort should be made to open the route between the eastern extremity of the Assam Valley and Batang upon the frontiers of China and Tibet. During his administration of Bengal he had occasion to draw a good deal closer than formerly the intercourse with the tribes occupying the hills, who had become much more amenable than they used to be. So far as those tribes were concerned, he believed there would be no real difficulty in establishing a communication with Batang. There again the only difficulty was the political one. If that could be overcome, the communication might follow the course of the Brahmaputra proper, and so reach the great province of Szechuen, and perhaps open a way for Chinese emigration into the tea-districts of Assam, which were perhaps the best in the world.

Sir CECIL BEADON entirely concurred with Sir George Campbell in the praise he had given to Mr. Markham, for the extremely interesting paper which he had read. When he (Sir Cecil Beadon) was in Bengal, one or two attempts were made to explore the Brahmaputra, so far as it was practicable, by means of steamers and boats, and on one or two occasions considerable progress was made in going up that branch of the river called the Diing; but at no great distance above Sudiya it was found to be so exceedingly rapid, and the course so much contracted, that the steamers were unable to stem the current, and the attempt was given up. Between that point and the Towang route the countries bordering upon the valley of Assam were entirely in the possession of semi-savage tribes, with whom our relations are not of a very satisfactory nature, and through whose territories he was not aware that any pass had ever been explored by any European. Through the Towang Pass there was a considerable trade direct from Tibet, and that trade, he believed, had never been interrupted. It was not, however, open to Europeans, being

entirely confined to the Tibetans and the Indian traders who went up the valley of Assam. By the treaty which was concluded with the Bhotases after the campaign of 1864, a small portion of the Hill territory was transferred from Bhotan to British India, and a military station was formed there. From that point there was a road leading directly up, and some little trade found its way by that route. The natural route, however, was that to which Sir George Campbell had referred, up the valley of the Tista, below the Great Darjiling spur, to the pass which led into the valley of the Chumbi. That was the route which commerce had followed for ages, but Europeans were not allowed to penetrate into Tibet by that route. When he was in Bengal an attempt was made to carry a road up the valley of the Tista as far as the pass which separated Tibet from the newly-acquired territory of Bhotan, but very little progress was made. Whatever was done it was not probable that the trade between Bengal and Lhasa would ever assume very large dimensions, for the heights of the passes, probably not less than 18,000 feet, and the extremely steep ascent on the south side, would require a very large expenditure indeed to make the route practicable for anything but pack-animals. When he was at Darjeeling an effort was made to establish a fair in the neighbourhood of the station, and some little traffic between the traders from the plains and from Tibet took place; but although apparently there was no objection on the part of the Tibetans to resort to the fair, the trade did not prosper.

Sir RUTHERFORD ALCOCK agreed entirely with Sir George Campbell as to the best route by which to communicate with China by Batang. No geographical difficulty was interposed by that route, and it was only political jealousy that prevented a considerable trade springing up in that direction between the plains of India and Szechuen. Wherever Europeans penetrated in the East trouble almost invariably followed, more especially in connection with China, which had already had three wars with England. It was not therefore to be wondered at that great difficulties should be placed in the way of our further advance. Patience and forbearance must be exercised, and no doubt in the end a communication would be established that would be beneficial to both places.

Mr. W. H. JOHNSON, the traveller who crossed the Kuen Lun into Khotan in 1866, was then introduced to the Meeting by the President. He thanked the President and Colonel Montgomerie for the honourable mention they had made of his services in connection with the Great Trigonometrical Survey of India, and hoped that many explorers would ere long be found to visit the great country which Mr. Markham had so ably described.

The PRESIDENT said that for many years past Mr. Johnson had been Commissioner for the Maharajah of Kashmere in Ladak; and in fact, was the Governor of that district. In that capacity he had rendered most important services to the British Government in facilitating the transit of Mr. Forsyth's mission, and later still Mr. Shaw's mission. His services had been very highly spoken of both by the officers concerned and by the Government. He was at present in England on leave, and was about to return to Ladak, where it was to be hoped he would continue his geographical labours, and occasionally send home such information as he was able to collect with regard to that very interesting country to the east of Ladak, where the gold-fields existed, but regarding which very little was at present known.

AWARD OF MEDALS.

In conclusion, the PRESIDENT announced that the Royal Gold Medals of the year had been awarded to Lieuts. Weyprecht and Julius Payer, for their explorations and discoveries in the Arctic Sea, between Spitzbergen and Nova