HIMALAYAN EXPEDITIONS.

Admiral Lynes' Ornithological Expedition to Kashmir, 1928.

THIS EXPEDITION was organized by Rear-Admiral Hubert Lynes, C.B., C.M.G., with the object of studying the distribution and habits of Kashmir birds, and to gain material for the monograph which is being prepared by Mr. Hugh Whistler. Mr. B. B. Osmaston, late of the Indian Forest Service, a well-known ornithologist, as well as Mr. Whistler, was fortunately able to accompany the expedition, and Admiral Lynes was able, through the courtesy of the Bombay Natural History Society, to send Mr. V. S. La Personne to investigate certain problems dealing with the avifauna of Gilgit.

The expedition left England on the 22nd March, and arrived in Srinagar on the 9th April. After ten days' halt here to collect staff and stores, a start was made for the Lolab, via the Wular lake. In the Lolab a grave loss befell the expedition. Medical and family reasons unfortunately compelled the leader, Admiral Lynes, to leave hurriedly for England on the 27th. At his wish, however, Osmaston and Whistler carried on with the programme.

From the Lolab the party travelled by Lake Manasbal, and up the Sind valley to the Zoji La, which they crossed on the 23rd May, Heavy snowfall and numerous avalanches had been a feature of the late winter, and snow still lay to about five miles below Matayan. The Treaty Road was now followed to Khalatse on the Indus. It had been particularly desired to reach the Ringdom Gonpa at the head of the Suru valley by the end of June, as various interesting birds breed in the marshes below the monastery. The road from Bod Kharbu over the Kungi La, approximately 16,000 feet, was still impassable and an alternative but little-known and difficult route through Zaskar was followed, by which the Gonpa was reached on the 27th June. Five days were now devoted to the birds of the marshes.

From Ringdom the ordinary route was followed down the Suru valley to Kargil. There it was decided to visit the plains of Deosai, by the valley of the Shingo-Shigar. From an ornithological point of view the Deosai proved somewhat disappointing, while the mosquitoes made life a burden and work almost impossible.

The return march was made by the Skardu route to Burzil Chauki, which was reached on the 26th July. From here it was easy going down the valley of the Kishanganga to Gurais, where La Personne arrived fresh from his three months' trip to Gilgit. Osmaston and

Whistler eventually reached Srinagar on the 6th August, and after devoting a few days to the marshes of the Kashmir valley, left Kashmir on the 14th.

On this expedition a large collection of skins was made, consisting of 700 birds obtained by Osmaston and Whistler, and 450 by La Personne. The former also collected about 450 eggs. Osmaston made an extensive collection of flowers and plants to illustrate the flora of Ladakh, and a mass of field-notes on the birds was also obtained. The whole of the ornithological specimens have been most generously presented by Admiral Lynes to Whistler, for use in the preparation of his book on the *Birds of Kashmir*, on which the latter is already engaged.

The Italian Expeditions to the Karakoram, 1928-29.

In the autumn of 1927 the Milan section of the Club Alpino Italiano made plans for an expedition to the Baltoro glacier in 1929. Under the auspices of this club and of the Royal Italian Geographical Society and under the immediate leadership of H.R.H. the Duke of Spoleto, the main party will attempt to cross the Muztagh-Karakoram watershed, east of Golden Throne or north of Broad Peak, to the Urdok or Gasherbrum glaciers. From here it is hoped to reach the Shaksgam valley, where the survey of the last remaining gap will be completed, together with its tributary glaciers. By following the route taken by Sir Francis Younghusband in 1887, it is proposed to return to the Baltoro glacier by the Muztagh pass.

In the summer of 1928, the Duke of Spoleto organized a preliminary expedition to Baltistan to collect and store supplies at Askole, the furthest village up the Braldoh, and not far from the snout of the Baltoro glacier. The members of the preliminary venture, besides the Duke, were Commander Mario Cugia, of the Royal Italian Navy, and Dr. Umberto Balestreri, late Secretary of the Club Alpino Italiano. Mr. S. W. Steane, who had recently retired from the Kashmir Forest Service, was employed by the Duke to superintend the transport arrangements.

The Duke and Commander Cugia paid a short visit to Simla during June, where the Himalayan Club, of which both are Founder Members, placed all available information at their disposal. In early July the party, including Dr. Balestreri, left Srinagar, and taking the route over the Deosai plains, formed the depot at Askole without much difficulty. A month later they left Askole for Srinagar, via the Skoro La, Skardu, the Indus valley, and the Zoji La.

On the 10th August, during the return journey, Dr. Balestreri climbed the rocky peak, Cheri Chor, which rises to the west of the Skoro La. Brief details of this climb are given below :—

Dr. Balestreri left the Skoro La route about 500 feet below the pass on the north side at 11 A.M., and ascended westwards a steep gully filled with debris, though still partially under snow. This gully led directly to a snow col on the north arête, about 1,200 to 1,300 feet above the start and some 300 to 350 feet below the summit of Cheri Chor. It was, however, dangerous owing to falling stones, and Dr. Balestreri had, therefore, to scale the rocks on its left side to a point three-quarters of the way up, where the gully narrowed to an ice couloir. From here he reached at 12-30 the col on the north arête, partly by cutting steps in the ice, and partly by climbing the rocks on the right. From the col the route generally followed the north arête. Fresh snow covering the rocks, and two large slabs of rock with few handholds caused a good deal of trouble, but the summit was reached at 1-15 P.M. by a slight detour to the east in the last stage of the climb. The total climb of from 1,500 to 1,700 feet occupied $2\frac{1}{4}$ hours including short halts. The descent by the same route took a little over an hour, the slabs being much more difficult, but the couloir easier.

Schlagintweit in 1856 was probably the first European to cross the Skoro La, while Godwin Austen in 1861 was certainly the first to fix its position with any accuracy. His rough reconnaissance surveys are still the basis of the map of this region, though the Workmans made a small but probably correct alteration in the lie of the glaciers by the peak Mango Gusor.

Godwin Austen, however, did not fix the height of the Skoro La ; and subsequent travellers disagree. In 1892 Sir Martin Conway put it at 17,400 feet. In 1899 the Workmans found it 16,800 feet by a Watkin aneroid and 17,000 feet by a Carey. In 1902 Guillarmod made it 17,716 feet, while Sir Filippo De Filippi in 1909 made it only 16,700 feet by mercury barometer. It is therefore not yet possible to decide, though probably 16,800 feet is not far wrong. If this is so, Cheri Chor would be from 17,800 to 18,000 feet.

It is believed that Dr. Balestreri is the first to ascend this peak. Godwin Austen's records are scanty ; Sir Martin Conway and General Bruce certainly did not climb it ; while if the Workmans had done so they would undoubtedly have said so in their book.*

* For a brief note on the Workmans' climbs in this region, see *Himalayan Notes*, p. 105.

The members of the Italian expedition for this year arrived in India in February and March and left Srinagar in three parties on the 27th and 30th March, and the 3rd April. It is organized as follows: H. R. H. the Duke of Spoleto (leader), Commander Mario Cugia (2nd in command), Signor Umberto Balestreri (in charge of the climbing and caravan), Lt.-Col. Gino Allegri (medical officer), Giuseppe Chiardola (topographer), Vittorio Ponti, Prof. Ardito Desio, and Prof. Lodovico Di Caporiacco. There are also a cinematographer, a wireless operator, and two experienced Courmayeur guides, Evaristo Croux and Leone Bron. Various scientific operations including magnetic and pendulum observations, will be carried out in the Karakoram.

Dr. Emil Trinkler's Central Asian Expedition, 1927-28.

The Expedition organized in 1927 by Dr. Trinkler to investigate the geography and geology of the Western K'un-lun and Western Takla-makan, returned to Leh on the 17th August, 1928, after an absence of a little over a year.

The route chosen was over the Lingzi-tang and Aksai-chin plateaux of north-eastern Ladakh, at right angles to the strike of the mountains. From here the members intended to explore the geology and glaciology of the upper Keriya-darya district. They then hoped to follow the tracks of Sir Aurel Stein and Prjevalsky to the Tarim basin in order to gain a comprehensive idea of the Ice-Age in this region. In this district Dr. Trinkler and Dr. de Terra set themselves three investigations: (*a*) the study of the geological structure of the western K'un-lun, (*b*) the orography and geology of the Mazar-tagh, that curious half-buried mountain-range which was supposed to cross the Takla-makan from Maral-bashi to the Khotan-darya, and (*c*) the origin of the great Takla-makan desert itself. Trinkler considered that existing evidence signified that the remnants of great inland lakes underlie the present dune-area, but that the date of those lakes was doubtful, though it was probable that the conditions in the Tarim basin were analogous to those in Russian Turkistan.

The expedition was led by Dr. Trinkler, whose special study was the geography and archæology of the regions traversed; Dr. de Terra undertook the geological investigation and Monsieur Bosshard devoted himself to photographic, cinematographic and botanical work. They left Leh on the 12th July with a caravan of 2 Indian servants, 10 coolies, 10 horses, 31 yaks, and 70 transport sheep. By the end of the month they reached Phobrang, the last Ladakhi settlement, some

six miles north of the western end of the Pangong Lake. From here the route led over the Marsimik and Lanak passes to the Lingzi-tang plateau, where the trouble began. First the riding ponies strayed and were lost; then the yaks began to fail, one or two animals dying every day. Post-mortem examination showed that they were suffering from small worms, probably caused by the bad water and lack of good grass. In spite of every precaution the losses continued, and only 11 yaks remained alive when the expedition reached the big salt-lake in latitude 35°10′, longitude 79°50′. The Kerya-darya part of the programme had, therefore, to be cut out for the present and the party had to march in a general north-west direction towards the upper Kara-kash. Near the big salt-marshes south of the Khitai-dawan, the expedition struck Sir Aurel Stein's route of 1908, and followed it down the Kara-kash where fresh transport and provisions were obtained from friendly Kirghiz. Suget Karaul, whose "fort" was garrisoned by a single Chinese soldier and a solitary customs official, was reached on the 7th October.

Dr. Trinkler writes in the highest terms of his transport sheep, only two or three of which died during the desolate march across the high plateaux. There is no doubt that sheep form the most suitable form of transport for these barren regions, though Deasy was unfortunate in not selecting the right type of animal. Captain Biddulph during the Forsyth Mission of 1873 relied almost exclusively on them and found them excellent. Two men only are required to look after 70 sheep, each of which can carry a load of 20 to 30 lbs., and a sheep can work without grass or water longer than a pack pony or yak.

Owing to the slow progress across the plateaux, Dr. Trinkler was able to make a very thorough exploration of the Aksai-chin, the existing maps of which, based on very rough reconnaissances in the 'sixties of last century, were found to be rather unreliable. Dr. Trinkler's surveys were, it is believed, carried out on a scale of 1 : 100,000, and it is to be hoped that the material will soon be available for incorporation in Survey of India maps. Dr. de Terra made a geological survey along the route, and has been able to combine his results with those of Stoliczka, the talented geologist who accompanied the Forsyth Mission to Kashgar.

The expedition having reached Kashgar early in December set out in two parties for the Western Takla-makan and the K'un-lun, where it studied the geological history of these regions, especially the origin of the great desert itself, and its recent history. Fresh

evidence was obtained of climatic change during the historical period, and a thorough geological study was made of the Mazar-tagh, both in the neighbourhood of Maral-bashi, and also at its eastern termination on the Khotan-darya. Though the expedition was purely scientific, and no topographical survey was carried out in Chinese territory, the party met with a good deal of suspicion and obstruction. It returned to Kashgar at the end of May, 1928, and left on the 2nd July for India via the Kilian-dawan and Karakoram pass, Mons. Bosshard returning direct to Europe by way of Russia with all the heavy baggage.

Detailed reports of the expedition are not yet available. It is to be hoped that when they are, a British publisher may be found with sufficient enterprise to let us have an account of them in the English language. In the meanwhile it may not be out of place to give a brief résumé of Dr. Trinkler's results. He considers that during the Ice-Age the whole high plateau region of western Tibet and eastern Ladakh, together with the Karakoram and K'un-lun, was buried under an enormous ice-cap, much as is the Spitzbergen of to-day. The great glaciers extending from this cap have left their moraines in the lower parts of all the K'un-lun valleys as well as in the upper tributaries of the Indus. On every hand, traces of former glaciation can be seen, roches moutonnées, striated erratic boulders and rocks, thick glacial gravel-deposits. These last stretch along the northern slopes of the K'un-lun, even to the edge of the Takla-makan itself, where they merge into the clay-terraces. As the great ice-cap melted, mighty rivers rushed down to the plains of India and Turkistan, inundating large areas of these countries. The Tarim basin thus became filled with a big inland lake. Then the supply of water diminished and the sands, carried by the prevalent north-east winds, accumulated and encroached.

The problem however is not quite so simple as this. Dr. Trinkler considers that there have been more than one climatic pulsation during historical times. At several places he came upon stretches of bare clay-terraces, containing numerous shells of fresh-water snails. Dead poplars embedded in the clay prove that the inundation depositing the clay took place when the trees were already dead. As we know from the old ruined sites that as early as the 3rd to the 8th century A.D. the poplars were not yet dead, the last big inundation must have taken place after that date. In certain dry valleys, scooped out by wind-erosion in the desert, a five-fold alternation of sand and clay could be observed, while near Khotan the culture-stratas of the

early centuries of our era were buried beneath the uppermost layer of clay.

Dr. Trinkler also succeeded in doing some archæological exploration. He discovered an ancient ruined site north of Pialma (between Yarkand and Khotan) where he found the remains of small Buddhist shrines belonging probably to the same period as the big Rawak Stupa north of Khotan. In this last-named ruin, he cleared the outer wall of the south-western gallery surrounding the Stupa tower, where he found life-size Buddhist statues in Gandhara style similar to those excavated by Sir Aurel Stein in 1900.

During the expedition Dr. de Terra carried out much useful geological survey. He investigated specially the age of the upfolding of the Karakoram and K'un-lun ranges as well as their structure. Marine and plant fossils were found both in the K'un-lun and north-east Ladakh. Monsieur Bosshard is said to have taken many interesting photographs as well as a cinema film. The detailed results of the expedition will be awaited with much interest.

DR. WM. FILCHNER'S CENTRAL ASIAN EXPEDITION OF 1926-28.

DR. FILCHNER'S name is well known as that of a persevering and determined explorer who has achieved important results in Central Asia and other little-frequented parts of the world. It may be recalled that, while a subaltern in the Bavarian Army, Lieut. Filchner first set himself the task of exploring the still unknown regions of Inner Asia. His first journey on the Pamirs was described in a book published in 1903.* A year later accompanied by a geologist, Dr. Tafel, he undertook a more adventurous expedition to the upper waters of the Hwang-ho and the little-known regions on the Sino-Tibetan borderland. This journey resulted in a valuable series of maps. Between 1911 and 1913 Dr. Filchner was occupied in oceanographical observations on board a German ship working in the Atlantic Ocean. He also served for several years in the Topographical department of the German general staff, and his services include expeditions to Spitsbergen and to the Antarctic. He has a number of books of geographical interest to his credit, and a volume of magnetic and astronomical results published in 1915 earned him the degree of Doctor (*honoris causa*) of Königsberg University.

The following brief account of Dr. Filchner's latest expedition may be of interest, pending the publication of his complete results. Dr. Filchner's interests are scientific and geographical rather than

* *Ein Ritt über den Pamir* von Wm. Filchner; Berlin, 1903.

political, and the primary object of his latest expedition was to fill in some of the many gaps in the magnetic surveys of Central Asia. During a considerable portion of his journey Dr. Filchner was unaccompanied by any other European ; he appears to have travelled very lightly and to have relied largely for his subsistence on such food supplies as were locally obtainable ; he suffered considerably from cold and sickness, aggravated doubtless by the uncompromising attitude of the Tibetans.

Starting early in January 1926 and travelling via Leningrad, Moscow and Tashkent, Dr. Filchner entered Sinkiang (Chinese Turkistan) at Kulja.* Thence his route lay through Manas, Urumchi and Hami ; across the Gobi desert to Anhsi ; thence via Suchow, Liangchow, Pingfan and Sining to Kumbum near Koko Nor. Here, on the Sino-Tibetan border, he spent the winter of 1926-27, and got into touch with Marshal Feng of the Chinese ' Red ' Army, and General Ma, the Chinese Governor of Koko Nor. Ninety-five magnetic stations of observation were established between Tashkent observatory and Koko Nor, and Dr. Filchner had planned a parallel line of observations to extend across the magnetically-unknown region from Koko Nor to Kashgar. But at Koko Nor an opportunity presented itself of joining forces with two European travellers, Messrs. Plymire and Mathewson, who were making for Shigatse ; the latter being a member of the China Inland Mission whose knowledge of the Tibetan language subsequently proved invaluable ; funds and provisions being short the three decided to travel together.

Armed with a passport from the energetic General Ma, the party left Koko Nor in May 1927, and travelled west and south-west, following more or less the routes of Prjevalski (1870-73) and Welby (1896) until they joined A. K.'s south-north route of 1879-80 in the neighbourhood of the Maren Ussa tributary of the Yangtse river. Following the latter route southwards across the uninhabited Chang-tang, Nakchuka (150 miles N. of Lhasa) was reached on 10th September. Here the road to Lhasa and Shigatse was found to be barred by the Tibetans, and the expedition was compelled to turn westwards and make for Ladakh.

The next 300 miles lay mostly through the district of Naktsang which was mapped on the ¼-inch scale by Surveyor Gujjar Singh who accompanied Sir Henry Hayden's expedition in 1922.† Westward

* Dr. Filchner's route is shown on the sketch-map at the end of this volume.

† The travellers were not aware of this fact at the time,—Sir Henry Hayden's posthumous volume (*Sport and Travel in the Highlands of Tibet*), reviewed on p. 108, having only appeared in 1927.

however, of the 86th meridian, a new and interesting line was taken as far as Gartok. This line ran parallel to, and to the south of, Nain Singh's route of 1873-75, and well to the north of Ryder and Rawling's journey of 1904. The only previous European traveller in this area is Sven Hedin, whose route (of 1906) was touched two or three times south and west of lake Ngangla Ringtso.

Gartok was reached on 1st February, 1928, and Leh a fortnight later. Here the party broke up; Dr. Filchner subsequently spent six weeks at the Geodetic Branch Office of the Survey of India at Dehra Dun standardizing his magnetic instruments against those of the Dehra observatory and roughly plotting his route on the 1/M sheets of India and Adjacent Countries. His final results, which are now being compiled in Berlin, will be awaited with very great interest.

It is interesting to note that Dr. Filchner is planning a further expedition in 1930, when he hopes for permission to extend his magnetic observations and geographical explorations in the little-known areas of south-east Tibet and the headwaters of the Salween. We wish him every success.

Peking to London by Car.

In 1927 Captain D. McCallum, of the East Yorkshire Regiment, and, at that time, Commandant of the British Legation Guard in Peking, had prepared to undertake, accompanied by his wife, an expedition by motor car from Peking to London. Starting by way of Mongolia and the Gobi Desert to Kashgar and Yarkand, it was intended at the latter place to dismantle the two cars and convey them by pack-animal across the Himalaya by the Karakoram route to Leh and Srinagar. In Kashmir the cars were to be reassembled and the journey to be continued to England via the North-West Frontier of India, Quetta, Duzdap, Meshed, Tehran, Baghdad, Damascus, Aleppo, Konia, Constantinople, Sofia, Bucharest and Budapest to England.

After eighteen months' work and every conceivable kind of setback and delay, the McCallums had their organization completed, petrol dumps established in the Gobi and in Turkistan, and the expedition was ready to start by the spring of 1927. The sudden anti-foreign turn of the political situation in China then compelled them to cancel that part of their journey across the interior of China. U.S.S.R. territory being denied to him for obvious reasons, Captain McCallum at once decided to try the only remaining probable route, that from South China through Indo-China, Siam and Burma into

India, where he hoped to join up with his previously-planned route in Kashmir.

After further delays the start was eventually made on the 12th June, 1927, from Peking. The expedition proceeded by road to Tientsin in two Buick cars. Owing to the disturbed political situation in China the cars had to be shipped from Tientsin to Haiphong in Northern Indo-China, from which port they penetrated by road into Southern China (Kwangsi Province) at the "Porte de Chine". From the "Porte de Chine" the journey was continued southwards through Tonking, Annam and Cochin-China to Cambodia and the famous Khmer Ruins of Angkor; and from Cambodia into Siam, where recourse had to be made to the railway, owing to the whole of the low-lying country of Central Siam being under water. From Bangkok it was intended to proceed northwards into the Southern Shan States of Burma at Kengtung, and from there westward to Mandalay, and thence via Manipur into Assam, and to Calcutta. Again owing to floods, the attempt to proceed by this route into India was rendered impracticable. A digression was therefore made from Bangkok into Malaya, whence the cars had to travel by boat from Penang to Calcutta.

From Calcutta the party proceeded along the Grand Trunk Road to Delhi and Lahore, thence into Kashmir by the Banihal pass. Leaving Kashmir by the Abbottabad route the expedition continued to Peshawar and the Khyber pass, thence along the North-West Frontier via Bannu, Dera Ismail Khan and Dera Ghazi Khan to Fort Munro, Loralai and Quetta. From Quetta they had a most successful run to Duzdap in south-eastern Persia. From this point the original itinerary was followed across Persia, Iraq, Syria and Anatolia to Europe.

The expedition finally reached London on the 29th May, 1928, after many delays owing to heavy rains in south-eastern Asia, snow in western Asia, and earthquakes in Bulgaria; 15,200 miles of the journey having been completed by car.

Minor Himalayan Travels.

Brooke, Major A. S.—During months July to September 1928, Major A. S. Brooke, 1-18 Royal Garhwal Rifles travelled into south-eastern Ladakh for shooting. From Leh, which he reached by the Treaty Road, he travelled up the Indus valley to Upshi, and thence over the ordinary route by the Tagalaung La, 17,500 feet, and Polakonka La, 16,600 feet, back to the Indus river at Nima Mad.

From here he crossed by the Sangpoche La, into the Hanle valley, in the tributaries of which he had good sport. He afterwards crossed the Lungmar La to Nima Mad, whence he returned to Leh and Srinagar by his outward route.

Major Brooke notes that the ferry across the Indus at Nima Mad cannot cross the river in a strong wind, when the water is too deep to wade. By 16th August, 1928, it was possible to ford the Indus here in the morning; the ford is generally impassable from May till August in a normal year. The route by the Lungmar La is preferable to that by the Sangpoche La in August, when the mosquitoes are exceedingly vicious in the lower Hanle valley.

Major Brooke's bag included : 1 ammon (*Ovis Hodgsoni*), 2 shapu (*Ovis Vignei*), 4 burrhel (*Ovis Nahura*), 1 Tibetan gazelle (*Gazella Picticaudata*), and 1 Kashmir stag (*Cervus Cashmirianus*).

DAVIES, Lieut. J. A.—In April and May 1928, Lieuts. J. A. Davies, R.E., and E. E. N. Sandeman, R.E., travelled via Gangtok and the Chumbi valley to Gyangtse, and via Lachen to the Lhamo lake. The routes are of course well known, but the following notes are of interest.

Gyangtse was reached in ten days from Gangtok, including a day's halt at Yatung. The marches Marponang-Changu-Champitang (33 miles), Tuna-Dochen-Kala (25 miles), and Kangma-Sadong-Gyangtse (28 miles), were doubled. The total distance to Gyangtse is 183 miles. The first of these double marches includes the passage of the Nathu La, 14,400 feet, and is not recommended for an unacclimatized party.

No shooting is allowed in Tibet. A shooting licence can be obtained for Sikkim, for burrhel, etc., and under certain circumstances ammon. These are obtainable in Northern Sikkim, and few men go there to shoot. Fuel is a difficulty, yak-dung being practically the only supply. Bungalows are available along the route to Gyangtse, and also as far as Thangu on the Donkya La route.

GLOVER, H. M.—In June 1928, Mr. H. M. Glover, of the Indian Forest Service, toured in the Tidong* valley of Bashahr State, Simla District, and with his wife crossed the Charang pass over the Central Himalayan Range, height 17,600 feet, to the Baspa valley. This route circles the Lesser Kailas, and according to Hindu tradition is an expiation for all previous sins of omission and commission.

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* The Tidong valley is shown on the old atlas sheet as *Todoong Gar*. The Punjab States *Gazetteer* gives it as *Tinang*. The spelling *Tidong* is that used in the Forest Divisional Records.

There was a large accumulation of snow but the surface was good. The weather was perfect and magnificent views of the glaciers and high peaks were obtained. It is hoped to publish an account of this journey in the next number of *The Himalayan Journal.*

MONEY, Major G. W. P.—In August 1928, Major Money travelled from Almora up the Dhauli river to Malari, and crossed the Chor Hoti pass to Rimkin and Bara Hoti. He returned by the Damjan pass and Niti. Major Money does not consider the Damjan pass (16,400 feet approx.) as difficult as the Chor Hoti, which is unanimously looked on by the local people as the more treacherous. Eight Bhotias are reported to have been killed by falling rocks in September 1927; and half an hour after Major Money crossed, in mid-August 1928, a blizzard caused a serious rock-fall, fortunately without causing any casualties.

SHERRIFF, Lieut. G.—In September and October, 1928, Lieut. G. Sherriff, R.A., travelled from Kashgar to the Tekkes valley. This journey may be divided into three stages: (*a*) Kashgar to Aksu, approx. 300 miles; (*b*) Aksu to Shotta, in the west end of the Tekkes valley, via the Muzart Dawan, approx. 150 miles, and (*c*) from Shotta to the upper Koksu valley, via the Kurdai Dawan, approx. 140 miles.

There are two main routes between Kashgar and Aksu: The winter road through Faizabad and Maral-bashi, which becomes very hot and dusty in summer; and the summer hill-road, via the Yai Dobe plain, the Taushkan river and Uch Turfan. The Muzart pass is open most of the year for laden ponies, and four men live beside the glacier to cut steps at one difficult point. Ismail Bai, who may usually be found at Aksu or Kurghan (2 stages beyond) is always ready to assist travellers and to supply guides. A present should be taken for the Chinese official at Shotta.

Ponies should be engaged for the whole journey from Kashgar. Each pony carries about 200 lbs., and costs about Taels 15 (=Rs. 30) per month. Grain is available as far as Aksu, and a little in the Tekkes valley, but if much is needed, it must be brought four marches from Kulja (Ili). Good tents are essential and should be brought from India. June, July and August are very wet months; after this heavy snowfalls may be experienced. Warm clothes and a good waterproof are necessary.

Flour and sugar can be had as far as Aksu, and at Kulja; vegetables from Kashgar, Aksu and Kulja; oil, matches, candles, Russian soap, rice, pepper, salt, biscuits, raisins, and occasionally some tinned foods and tea, cocoa, coffee, sardines and cigarettes may be had at

Kashgar. Sheep may be obtained almost everywhere as far as the Kurdai Dawan.

The best shooting-grounds lie between Shotta and the upper Koksu. Guides should be taken from the Shotta garrison. Shotta is under Aksu, and the Taoyin of Aksu will usually issue orders to Shotta for any help required. Game consists of wapiti, roe, ibex, sheep, besides small game. The upper Koksu valley seems the best ground for wapiti, the easiest time to shoot them being when they are calling, usually some time between the 15th September and the end of October. Roe are found in the jungles to the south of the road between Shotta and the Kurdai Dawan ; ibex in the Agiass valley and upper Koksu ; and sheep in the Yulduz valley, three marches beyond the upper Koksu valley to the east, over the Karaghai-tash Dawan. Small game consists of ram-chukor, chukor, partridge, duck, quail, hares, black-game, and, more rarely, bustard and woodcock.

IN MEMORIAM.

Arnold Louis Mumm.

(1859—1927).

ARNOLD LOUIS MUMM died at sea on the 2nd of December, 1927, on his way back from Japan. Had he lived to reach England he would undoubtedly have been one of the Founder Members of this Club, for a letter of invitation to join it was awaiting him there and his love of the Himalaya and interest in its exploration were such that he would eagerly have accepted. That love and interest will be apparent to every reader of his chief contribution to the literature of mountaineering, *Five Months in the Himalaya,* published by Arnold in 1909. In the preface to that delightful book he tells us that he had " always looked upon those who had visited the Himalaya as the most enviable of mortals," and when the chance came to join Bruce and Longstaff in an assault on Mount Everest he seized it joyfully. But the India Office raised insuperable difficulties and in spite of the goodwill of the Viceroy, Lord Minto—himself a member of the Alpine Club—the expedition to Everest had to be abandoned. The three turned their attention to Garhwal and Kumaun and in April of 1907 set out for an exploration of the approaches to Trisul and Nanda Devi. The result, as all climbers know, was the first ascent of Trisul (23,360