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MEDICINE AND SURGERY IN CENTRAL ASIA.

Being

A Thesis for the Degree of M.D. of the University of Edinburgh.

by

HENRY MARTYN STUMBLES

M.B., Ch.B., B.Hy., D.P.H.

M.D.

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AMBLE HOUSE,

AMBLE,

NORTHUMBERLAND.

He large sheet painted by an old Berdhist artist representing the "Wheel of life" from which these Photographs Lane here taken is at the diskoral of the Escaminers for their Aspection of they to desirs

MEDICINE AND SURGERY IN CENTRAL ASIA.

The Closed Land of Thibet had often enthralled me with a desire to penetrate its mountain fast boundaries, and take a peep at the daily life lived by those people who from time immemorial had been shut off from the outer world of progressive science. I wondered often what diseases prevailed, how they were treated, and how, in emergency, the new-born child was assisted into the world.

Thus it was that I found myself one day hunting through the small Thibetan colonies around Darjeeling for some one to aid me in acquiring the language, ere I ventured through the forbidden portals. But to obtain a teacher was difficult. The law (Thibetan) stated that any person enlightening the "outside people" on the subject of language, habits and geography of Thibet would suffer capital punishment for the offence when he should return again to his coun-Hence a great difficulty, for naturally the try. Thibetans prefer their heads to the tempting silver rupees which the would-be scholar jingled in his hand. Eventually fortune favoured me, for stealthily one night there came to my bungalow a big brawny Thibetan, with pock marked face and shaven head, who professed himself willing to take the post of tutor. I asked

him why he dared risk his life, and he hinted to me that other offences posted to his credit in Lhassa precluded his ever returning thither with safety, and therefore he would take the risk.

His name was Chambre-la, and for mis-using his powers as a Buddhist priest he had to flee from the wrath of the offended of his fraternity.

My first work was to get this man reasonably clean, for the hygiene of daily life as we know it is a nonentity to the Thibetan. He washes once a year, generally towards the end of February on the Thibetan New Year's day, when men and women gather together in one of the warmer valleys and mutually scrape the accumulated oil and filth from each other's From that time until the following New Year's day he lives in an ascending scale of bodily filth and peduciali. In my compound I stripped him, and with the aid of a knife - to scrape him - soft soap, scrubbing brushes and pumice stone, to say nothing of the elbow grease, I eventually transformed my man from a mud colour to a bright copper colour, well instanced by a dirty penny before and after cleaning. With a clean skin and a clean robe I admitted him into my study, where, for want of a knowledge of English on his part and Thibetan on mine, we sat mutually helpless.

Thus one of the great preliminary difficulties was learning a language of which no precise grammar existed, and that which actually did exist was worse than useless. To overcome this I devised a system so absolutely simple that I can take no credit for I took a book, and, lifting it up in my hand, pointed to it and simultaneously made enquiring glances with my eyes. The reply I got was "pa-cha". and I wrote down the word phonetically as I have spelt it here - pa-cha = a book. I then took a chair, and lifting it up and pointing to it eventually received the name "coob-gya" (also spelled phonetically) and so wrote down in my vocabulary - coob-gya Thus I went on with everything I could = a chair. lay hands on - tables, pins, blinds, doors, windows, etc., upstairs for beds, into pantries for eatables, and even into the stables for horses, so that at the end of a week I had a fairly comprehensive list of My next difficulty, and perhaps the greatest, was the acquisition of verbs, for these could not be taken and pointed to. However, once more taking my book - pa-cha, you will remember it was called - I kept lifting it up and putting it down on the table, making special indication that I wanted the verb to "Lenpa" came the word, and suiting the action I said "pa-cha lenpa" (lift a book) and my worthy

teacher smiled his acquiescence. To make sure I had obtained the correct verb I applied a similar action to a chair, saying "coobgya lenpa" (lift a chair) and finding I was right, I wrote that word at the head of my list of verbs. After that came work indeed, not only mental, but manual, nay, acrobatic, for all my verbs had to be acted, so that one moment I was laughing, in another crying, then vomiting, then running, falling and sleeping until I had exhausted both verbs and energy.

With this basis of nouns and verbs, and by constant visitation to the Thibetan huts, vile and vermin infested though they were, I soon picked up sufficient of the colloquial language to enable me to commence the more difficult part of properly forming the characters and learning to read and translate. For six months I worked fourteen hours per day, and by that time could both read and write.

I have penned this as evidence of the fact that all I was enabled to investigate was done intelligently.

Having thus acquitted myself, I decided previously to entering Thibet to spend some time in the valleys of Sikkim just beneath the mountain passes into
Thibet, where for five months in the year are to be
found the women and children who accompany the

caravans which annually arrive from Thibet with wool and salt for sale and exchange. The Thibetans who go further South into the marts of Northern India leave their wives and children in these valleys in temporary built villages, consisting of perhaps 30 huts, until they return with tobacco leaves and clothing to take back to Lhassa.

Clad in Thibetan clothes, with a solitary mule bearing my impedimenta packed into two boxes weighing 100 pounds each, I made my way to one of these valleys - eleven days' journey - fighting leeches by day and jackals by night. How glad I was to see the collection of little huts myself alone knows, for the roads in Sikkim are no reads, and in some places it was a case of climbing up one side of a boulder to climb down the other side.

On reaching the village I had hoped for friendship, but what was my chagrin to find on my arrival
both women and children, together with a couple of
men who had been left in charge, had retired to their
huts and barricaded themselves in. However, I took
no notice but passed on through the valley until I
came to a suitable spot to deposit my belongings.
Having released my mule, I gathered together materials to make a shelter for the night, and having
done this, lit my fire, cooked my evening meal, and

lay down, careless whether or not I was molested.

Early the following morning I perceived that the villagers had once more summoned sufficient courage to venture out, and I arose with the object of speaking to them, but upon my appearing they again instantly vanished, and although I called and spoke to them in their own language, they still mistrusted the white stranger - the first white skinned man they had ever seen.

With everything at a standstill, I was at a loss to know what to do, until I bethought me to play upon their curiosity, of which Thibetans possess no small I, therefore, emptied one of my wooden boxes, and making a hole through the end, fixed in a rope, thus making a rough sleigh not unlike those commonly seen in our streets at home being pulled about by little children. With the rope over my shoulder I pulled this box up and down the village street for two hours without any sign of anyone open-As time went on, however, the curiosity ing a door. which I depended on dominated, and one by one I saw hut doors gradually opening, perhaps to the width of half an inch, and enquiring eyes followed the actions of the supposed mad white man. As curiosity grew, so doors opened wider, until not only did they stand wide open, but the Thibetans stood nonchalantly in

the doorway wondering what was in the box. Gradually the little children advanced closer, as children will do, until one came so near that I had no difficulty in catching him, putting him into my box and giving him a ride up and down the village street.

That was enough. When I returned whence I had started, all the children, some 42, endeavoured to scramble into my box at once, whilst their mothers looked on and laughed. By turns, however, they all had a ride, and I promised to appear again next day in the same role.

Long before I was ready for them they came for me, shouting for the "dred-po" (slide or sleigh).

Once again I made a start, and for eight solid hours in a broiling sun I pulled those Thibetan children up and down the street until the wooden bottom of my box actually gave way.

Needless to say, from that time until their friends came back and they started for Thibet we were the greatest of friends, and I had no difficulty in commencing my investigations of some of the diseases peculiar to these people.

I told them that I was an "Umjee" (Doctor) and although they found out from time to time that my medicines and treatment were quite different from anything they had ever heard of or experienced from

their own native doctors, they nevertheless sought me regularly when sickness broke out among them, or when any of them came to accidental harm. my first cases to deal with was that of a woman whose hand had been nearly cut in two across the back. Her little son, in a moment of passion, had taken his father's sword, a long instrument weighing seven or eight pounds, and with his two little hands brought it down over his mother's hand as it rested on the All the extensor tendons were severed, and as I did not see the woman immediately, being away on the mountains, by the time I returned they had adopted their own treatment for the suppression of haemorrhage, which was to mix together horse dung, crude opium and gum into a thick sticky mass, covering the wound with it and fixing on with a tight This I found was the usual procedure in bandage. such cases, and the remarkable thing was that both on this occasion and on subsequent occasions when I saw the same treatment followed out no septic complications followed. In the present case I joined the tendons by stitching them, and dressed the wound in a modern way, so that in a very short time healing by first intention took place, although I must say I daily looked for symptoms of tetanus.

One of the chief troubles from which these

people suffered was toothache, and as there was no dentist among them they were glad to avail themselves of my services to extract their teeth. They were very much surprised at the painless method - although no anaesthetic was used - adopted by me, as they told me that the professional dentist in Thibet was the blacksmith, who with chisel and hammer cut down on each side and beneath the offending tooth, thus practically chiselling it out. This no doubt accounted for the ugly gaps in the jaws of so many Thibetans that I came across. In afterdays, when journeying to Lhassa, I found that my fame as a dentist had preceded me, and in some villages where I stopped I took out as many as one hundred teeth a day, some Thibetans journeying from distant parts to boast of the experience of having a tooth extracted with the white man's silver forceps.

During the five months which I stopped in this little valley I started a school for the children. There are no schools in Thibet, the only persons educated being the boy priests, one boy out of every family being given to the priesthood. Other boys may enter the priesthood, but one certainly must, and if he alone goes he is the only one educated. Thus most of the boys and girls can neither read or write, they certainly cannot spell, and when I

suggested teaching them something of their own language and also something of mine, I had no difficulty in gathering together between thirty and forty children every day. For this purpose the women combined together and helped me to build a hut sufficient to accommodate them, and I sent a messenger down to obtain materials for making a blackboard.

At first I did not teach them sums or spelling, but drew pictures of things as we have them in Eng-Trains they had never heard of and were much land. Ships, also, since the only means interested in. of navigation they have on the large lakes in the interior of Thibet are inflated sheep skins joined together and coated over with layers of bamboo. a rule they use no oars, but lie face downwards on this raft and paddle with their hands. When I drew a picture of the large steam boat which had brought me to India they were so astonished that they could not speak, and even now I doubt very much if they believed what I said was true.

However, this paved the way for the harder work of teaching, and very soon they could spell simple words, and also read from one or two of the old Buddhist books which I had brought with me.

They wished also that I should teach them to sing, as I used to sing to them at times, but this

was exceedingly difficult as Thibetans have no knowledge of music, indeed they have only two notes, one high one and one low one, and by singing these alternately they produce the most mournfuldirge that could possibly be imagined. To teach them sounds I made a large white mark on the top of the blackboard, indicating their high note, and another white mark on the bottom of the blackboard, indicating their low note, then between the two another white mark, and I tried to explain to them that they must modulate their voice so as to hit between the two. No two of them succeeded in striking the same note, so the effect can be more easily imagined than written, when thirty two voices made an effort for a note and then missed it by semitones. However, they did not do so badly, and ere the five months were up some of them could imitate little tunes fairly well.

The day came when their fathers and brothers returned with their merchandise, and they had to set out homeward ere the winter snow fell and blocked up the passes. Naturally the men were very much surprised when they saw me there, although they had heard further South that it had been my intention to make for this valley. They were very grateful for everything I had done, and some of them were so grateful that they were even willing to take the risk of

allowing me to accompany them into Lhassa. I hardly felt justified in doing this, because the Thibetan law is so strict, and I knew that some, if not all, of them would have to pay the penalty for their kindly meant act. After a few days, therefore, they returned, promising me that as they passed through certain villages they would speak a good word for me and thus make my travelling in their country much easier. They told me which villages to avoid and which to enter. Some of course they knew would resent the intrusion of a white man, to others his entrance would be acceptable.

One month after this, I crossed the frontier over the Donkia Pass, 18,000 ft. high, and found myself in the Closed Land. The entrance into Thibet from the Indian frontier is extremely difficult. The Thibetans know, however, that the physical difficulties are the easiest on the Southern frontier, therefore, in conjunction with the Chinese, they keep a strict watch upon all possible paths through which a person may traverse. I had, therefore, to go a very roundabout road ere I reached a small monastery about 15 miles over the frontier, where I was informed I should find friendly Lamas (priests). Arriving here I found that this monastery had been in existence over 400 years. It was built partly of stone and

partly of wood. There resided there about 60 priests, most of them over 40 years of age. They gave me a warm welcome, and although living among them was cold and cheerless I look back to it now with a certain amount of pleasure, and certainly recognise that had it not been for these priests and the information which they gave me I should have been unable to have proceeded much further with my investigations.

This is not the place to narrate all I saw there. The only thing I will say is that I saw a priest with knees almost twice their original size, due to his having been constantly kneeling for fifteen years. In his little room he had a shrine of the goddess that he worshipped, Nam-gyel, Queen of the heavens. Where he knelt on the floor there were two distinct hollows in the planks of wood. When I first saw him he was kneeling in an attitude of supplication, and I asked him why he knelt there. He replied. pointing to the image "You see that incarnation how still she is, how good she is, and how little harm she does. I am kneeling here in the hope that the same spirit which permeates her may enter into me, so that I may be a good and holy man". There he had knelt for fifteen years, and possibly would have to kneel the rest of his life if he was to depend on

that means of behaving himself.

At this monastery I completed the language, the Lamas placing at my disposal all the chief Buddhist works, medical and otherwise, which they possessed. From these I was able to gain much information regarding the invasion of disease among the Thibetans. The oldest of these books stated, curiously enough, that their country at one time was absolutely free from diseases until the "outside man" (man from any country outside Thibet) came into the country. it was, according to them, who brought disease, and this was venereal disease, as to this day it is called "pe-ran", the same name being applied to any Feringhi or European. Of this disease I cameacross numerous cases and in all stages. I think I am not exaggerating when I say that 20% of the males whom I examined showed either present or past signs of venereal chancres. This is not difficult to comprehend when it is borne in mind that polyandry is a recognised custom in this country. I have known one woman to have 20 husbands - living perfectly happily together - the woman keeping the purse and the men bringing to her all their earnings. Thus the transmission of venereal disease under these circumstances is easy to a degree. Regarding its treatment the only one they adopt is to apply strong solutions of

Rock Salt to the sore. Although this is painful at first, as may be supposed, yet after a few applications the Thibetans seem to feel it less acutely. All that this treatment does is to stimulate growth of granulation tissue and gradual healing follows. They have no internal medication and so the constitutional symptoms remain unattended to. On several occasions I came across men who had very little of their penis left, it having been eaten away, and on two occasions, I was the witness of their very primitive operation for amputation of the penis. was performed by one of the priests who placed a pair of long iron pliers into a brazier and when they were red hot he applied them to the root of the penis and tightening his grip the hot irons soon found their way through the flesh - the blood vessels being sealed by the great heat en route. I should say here that operation is not alone performed in cases of extreme mutilation of the genitals by venereal disease. It is also done as a punishment for rape. The procedure is as follows: - The offended woman makes complaint to the priests of the monastery controlling her district. The priests send out soldiers to arrest the man who is brought before them, and the woman has to make her charge in the offender's pre-If she makes out her case the man is

generally sentenced to loss of his genitals and he has to pay the woman he has assaulted the weight of his genitals in gold. After amputation in the manner described, the penis and testicles are put in a scale by the priests who weigh them and state the amount to be paid. The attached picture of the (see hage 47) operation was painted for me by an old priest at this monastery in a large coloured drawing known to them as the "Wheel of Life", it being a picture cycle of the common occurrences of life and thereafter.

At this Monastery my work, both medical and religious study - for I fell in with the daily routine of the Monks - procured for me the first two degrees of the Buddhist priesthood and I only mention this fact in order to place on record that human flesh is eaten on these sacred occasions. As a candidate for priesthood honours, I had to enter the examination arena which is surrounded by all the senior Monks of the district. These bombard the candidate with religious questions which if are answered to their satisfaction, they evidence by holding up their thumbs and by much shouting. The candidates that are approved of have to partake of the "communion of saints" that is, they have to eat a small portion of the flesh of one of the dead Lamas who is supposed to have been an incarnation of Buddha. The flesh

offered to me was old and musty, it having been kept for over 13 years, and although I carried it to my mouth with all the reverence that the occasion demanded, I allowed it to drop into the long wide sleeve of my Thibetan dress where I took care of it until an opportunity offered for its disposal.

From this Monastery I started out on a seven months' journey towards Lhassa, where I could get into some of the larger towns and study sickness in somewhat larger bulk than it presented itself in isolated mountain hamlets.

Once on the great Plateau which dominates the centre of Thibet, I thought I had every reason to congratulate myself, for near the frontier the people were kind to me and gave me every assistance that I needed, but I found as time went on that the nearer I approached the capital in the same degree did their kindness abate.

My first experience of native surgery was seen in the form of the punishment of some thieves. This was at Shigatse which possesses a Monastery containing 3,300 monks. One man had his armschopped off at the elbow joints with a sword, and the stumps remaining were plunged in boiling oil to allay the haemorrhage. Another man, whose crime was greater, lost both his legs in a similar manner, they being

removed at the knee joints and the stumps also plunged in boiling oil. Later on, another man who had behaved criminally to a little girl was laid upon a stone table and his eyeballs pushed out from their sockets by inserting two thin pieces of iron in the thin part of the temporal bone and pushing them out Once out, the sockets were filled up from behind. with hot oil. The wonder is that any of these people lived, and yet I was told that such punishments were not infrequent in Thibet, and that outside Lhassa there was an entire town devoted to these mutilated people, to whom the Government showed their sympathy by allowing them daily a small portion of rice and barley flour, thus enabling them to carry on their meagre existence until death relieved them.

CANCER.

I was much surprised to find that various forms of cancer were very common among the Thibetans, especially cancer affecting the stomach and liver. Even children under the age of ten die of it, and after excluding all other possibilities, except perhaps that part played by heredity, I feel assured that it is mainly caused by the food which is eaten

and the liquid which is drunk. The main diet of the Thibetans consists of "tsamba" (roast barley flour ground very fine). This they carry in little leather pouches, and when feeding time comes they take a handful, knead it up with a small quantity of rancid butter, and eat it. Of flesh food they take mutton and pork, both practically raw. A sheep is killed, skinned, cut up and hanged, the exceedingly cold atmosphere drying it and keeping it from putrification. In every house a joint of mutton hangs, so that at any time of the day or upon the entrance of a visitor, they place the joint on his knee, hand him a knife, and he cuts off slices and eats his With pork it is different. They kill a pig fill. and disembowel it. They then put it whole, unwashed and unskinned, in a fire made in the open air of twigs of trees, bamboos and peat. When the time for feeding arrives some 30 or 40 of them sit around this animal, and each with his knife cuts out wedges from the part he fancies most. Thus they are continually eating of practically uncooked pork, with the result that not only do they suffer from tape worms, but most of them have chronic catarrh of the alimentary canal.

Their drink consists of Chang, a kind of beer made by infusing grain with hot water, and Thibetan

tea, which is a source of great gastric irritation. It is made as follows: A large bamboo tube is taken, into which is placed two handfuls of leaves from the tea brick. This brick consists of whole leaves from the tea plant compressed together into masses of about two pounds each. To this is added some salt, soda and rancid butter, and to the whole of this a large quantity of boiling water. They drink of this decoction as many as thirty cups at a time, the cups of course not being particularly large ones, each containing possibly a quarter of a pint. The rancid butter referred to is butter which has been kept for a great many years, possibly 70 or 80, and has been stored in sheep skins. This and cheese which has been kept similarly a very long time are indispensable to the Thibetan. Thus it is perfectly easy to understand that the constant irritation of the stomach and bile ducts by this form of diet and drink is most conducive to the very prevalent cancer. symptoms which they present are jaundice, acute pain, vomiting with occasional haematemisis and melena. The course of the disease is very rapid, most of the cases which I came across dying in a very short time, and many of them in less than a fortnight after I first saw them. This is possibly due to the very exacting atmospheric conditions under which these

people live, as in all cases of fatal illness I have noticed that after a certain stage of vitality was passed, death was very rapid. The treatment generally adopted by the Thibetan doctors (who, by the way, are the priests) is to employ the aconitum ferox of Nepaul, or some other species of Aconite or strong decoctions of Wormwood which they get from the fertile valleys. The leaves and stems of the latter are boiled together for some hours, and then the patient is given large quantities of it. the sick house the selected priest and some of his attendants sit and beat drums day and night to frighten away evil spirits. They often bring with them a Thibetan dog, a most savage creature, which is supposed to keep away evil spirits, but which in reality is cunningly used by the priests so that no relative or friend can come and interfere with their ceremony which, in reality, is one of Extortion. (see Photo No.2).

TUBERCULOSIS.

Apparently very little tuberculosis exists, especially in the form of phthisis, as during three years' travels I came across only four definite

One was in a young priest of 21 years of age, and he was not allowed to live until he died. the priests recognised his trouble they appeared very much afraid, and next day he was bound with cords, sitting in the shape of a Buddha, and, followed by a great crowd of mourners, he was carried out to the hillside. A pyre of wood was built upon which he was placed, then wood was built up all round him until only his head was discernible. Tins of kerosene oil were then thrown over the pyre, which was set on fire, the flames rising to a great height, so that when they abated nothing could be seen but the charred skeleton left. I was much exercised as to whether or not I should try and save him, but he told me voluntarily that it was his own wish to die thus, as great credit would be due to him thereby, and he hoped that by this action he might, after passing through Nirvana, be re-incarnated as a Buddha. was very sad, yet, after all, the process was certainly one of sure extermination.

The Thibetans give to Phthisis the same name as they apply to any chronic disease. It is "gcon-nad" and literally means "a sickness from the heart", the heart being looked upon as being the central pivot of physical existence so that anything affecting it is sooner or later fatal. It was for this reason that

I was unable to obtain any reliable statistics as to the number of genuine cases of Phthisis. ly all fatal cases of illness turned out to be "gconnad". I am convinced, however, after continuous observation, extending over nearly three years, that tubercular affections of the lungs are very very rare and this is undoubtedly due to the cold, dry, rarefied air which is breathed. The majority of houses in Thibet are not air-tight as those in this country, being built of light material, mostly of mud, through which volumes of fresh air are constantly flowing. I examined several hundred sputums for the tubercle bacillus but only came across nineteen in which the bacillus was found, and out of these, as I have stated, four only were in a dying condition.

Three of these cases occurred in women, who showed the usual symptoms of emaciation, cough, fever and haemoptysis. When I left the villages in which these cases occurred nothing had been done with the women, and what would happen was very uncertain, as they did not wish to die, there being no glory in Nirvana for a woman, and no possibility of re-incarnation into anything more than an ordinary domestic animal.

Other tubercular lesions were very few indeed. During three years I saw:-

The treatment of these tubercular lesions, when abscess formation had terminated in an external wound, was to introduce into the joint a red hot sharp piece of iron. There was no anaesthetic given, but nature generally supplied the anaesthetic in that the patient fainted and was thus unconscious to the pain of the operation, although naturally much was afterwards felt.

RESPIRATORY DISEASES.

Respiratory diseases, other than phthisis before mentioned, and which are common, are bronchitis and pneumonia. The Bronchitis is in every way similar to that form most commonly experienced in this country. It is associated with cough and profuse expectoration, and the mortality is high. But on the other hand, one is almost led to the belief that the pneumonia is non-organismal. Sputums which I examined revealed only very small coccus, never grouped and never in chains, just single cocci lying about in

various parts of the field and very few in number.

I searched diligently for the pneumococcus of Fraenkl but could not find it, and I feel sure, although I confess that the roughness of circumstances did not permit of making cultures of this cocci, that they were simple organisms of low formation. Moreover, strange to relate, the death rate from this form of inflammation was much less than that of Bronchitis - less than half.

Whooping cough was not uncommon. I came across some 50 or 60 cases. These were treated by stopping up all the outlets in a small hut, and subjecting the patient to the fumes of smouldering wormwood. This wormwood is most extensively used in all chest affections. The leaves are rolled up into balls, stuffed up the nostrils as far as they will go, and all respirations have to be made through the nostrils. It is believed in greatly by the Thibetans and forms their household nostrum, such as Mother Siegel or Zam-buk in this country. Every year parties go down into the valleys and collect large quantities of it.

FEVERS.

Scarlet fever, measles and enteric fever are the commonest which are prevalent, the first less so than the two last. Scarlet fever and measles are not virulent in form and deaths rarely take place from On the other hand, enteric fever generally assumes a more severe type than that found in this Temperatures go up to 106° within the four days, and 80 per cent of the cases do not live longer than a week. The extensive prevalence of enteric fever is doubtless due to the entire absence of drainage, and to the pollution of water streams with faecal matter, and also to the washing of infected clothes in streams which are the sole water supply of a town or village further down. I have frequently seen the most tempting sparkling spring water .come trickling down the mountain side, only to find, when I got farther up, possibly a mile, that a large washing was in progress, that cattle were drinking and people bathing in the same water. The absence of any rational treatment for this kind of case is the natural result of a country ignorant of medical The people have been brought up to trust their priests, and these priests pray and give some concottion, worthless though it may be, to satisfy the whim of the relatives concerned. This is only

a matter of form, for the priests make their living entirely in this way, and the more sickness they have the more they like it. No isolation is attempted.

Men and women, well and ill, all sleep huddled together on the floor of the hut and in this way I have known Typhoid to decimate a village. There are no sanitary conveniences, even in the larger towns, the people simply going outside the hut and sitting down in the first convenient spot.

Simple continued fevers proved to be very common indeed and could be clinically distinguished into two large groups, viz.:-

- 1. That which simulated Influenza.
- 2. Those which did not simulate Influenza.
- 1. The former was no doubt Influenza as we know it in this country, associated with rapid rise of temperature, general malaise, joint pains and severe headache. It was most rarely met with in the scattered hamlets and most frequently met with in overcrowded villages and towns. Moreover, its appearance in Thibet was within the remembrance of the older priests who informed me that it was introduced into the country by the "rgya-ser-pa" (travelling Russians) who for many years have traded on the Northern and Western frontiers, having reached the immediate borders of Thibet through Turkestan. These people were referred

to by the Thibetans as being very dirty in their habits.—although it would be almost impossible to imagine anyone more uncleanly than the average Thibetan—and to their habitual filth they ascribed this form of fever. The more feasible explanation is that it occurred first in Thibet about the same year as it took on an epidemic form in Russia and that it spread both East and West — to Thibet and China, and through Prussia to this country and further westwards.

2. Of the other forms of simple fever which did not simulate Influenza, one stood out in bold relief, and I had not much difficulty in recognising it as belonging to the family of fevers caused by the micrococcus Melitensis. It resembled in all its symptoms the Malta Fever of Malta, the Rock Fever of Gibraltan and what is known as Camp Fever in the plains of The chief symptoms were profuse per-South Africa. spiration, pains, swelling of joints and enlargement of the spleen. Moreover, the cause was not difficult to find as it occurred in those areas where goat's milk was most frequently drunk. malady, the native prescription was arsenic (bha-bla) which is imported from the Nepalese and also from the inhabitants of the Pamirs by both of whom it is habitually used.

LEPROSY.

This has been endemic in Thibet from time immemorial although it cannot be stated to be common. The Thibetans themselves colloquially call it the same name as cancer (lhog-pa) although its classical name as given in the Shad-gyud - the chief medical work in Thibetan - is "rno". It exhibits itself chiefly in the form of large white anaesthetic patches all over the body which are very "itchy". To alleviate this, small portions of crude opium are mixed up with any animal fat and applied to the irritating Internally arsenic is administered in remarkparts. able quantities and it is to taking such large doses of the latter drug that the Thibetans declare themselves to be less susceptible to the destructive effects of Leprosy than their Indian neighbours. though I took several photographs of Thibetans who were suffering from the disease these unfortunately were robbed from me later on. I have, however, the following photograph of a Nepalese which I took and (Repage 48.) who shows well the destructive stage, more especially about the face. Although no definite isolative measures are undertaken, natural instinct seems to make all Thibetans desire to be as far as possible from the sufferer who is, therefore, generally isolated by the withdrawal of his own friends. Thus

one leper is generally joined by another unfortunate and by degrees several come to live together, forming a small colony. These take up their residence close to one of the main trade roads and live by the proceeds of begging from passers by.

The Etiology of Leprosy, viewed by the Thibetans themselves, is purely a religious one and need not be The one remarkable point to be entered into here. noticed, however, is that where I personally came across it, it was always in the vicinity of one of the great lakes of Thibet. Within a radius say of ten miles (equal to 50 miles in Britain) a large quantity of fish taken from these lakes is eaten. is indeed preserved until quite putrid when it is mixed with herbs and chillies and made into an appe-It is possible then that the cause is tizing dish. not unassociated with the eating of putrifying fish from these lakes. This opinion is supported somewhat by the facts that the wealthier class of Thibetans and the priests never suffer from it, and also that those people who eat fish caught from some of the large rivers do not seem to be susceptible.

CHOLERA.

In the hottest part of the year a number of cases occur in some of the lowest valleys where the temperature often reaches 113°F. in the shade. The mortality is great - about 70% - but it is difficult to know whether the actual cause of death is Cholera or opium poisoning. Crude opium in small sticky masses is placed in native spirit and allowed to remain there for 20 hours, after which comparatively large doses are taken. A person under its influence has all the physical signs of Apoplexy with the addition of pinpoint pupils. In this condition he sometimes remains for 48 or more hours and either wakes up well or dies under the influence of the opiate.

ACONITE POISONING.

Various species of aconite grow in the Thibetan valleys and the root is shredded when fresh, dried and macerated in spirit when it is used without any attempt at standardization! A large number of deaths are thus annually caused by its use as a medicine as it is commonly used in all feverish conditions. More frequently, however, deaths take place from aconite poisoning wilfully administered.

This was impressed upon me very forcibly ere I had been long in the country. Entering a Thibetan village one afternoon I perceived that I was not received with that effusiveness which had previously been my experience. When, however, later on one of the chief's wives came to me bearing two hens eggs I felt that I had possibly misjudged their intentions. Without examining the eggs I boiled them but after eating the first mouthful I felt a distinct unpleasant taste in my mouth which gradually assumed a tingling sensation. A few minutes afterwards I commenced to feel intense abdominal pain and it suddenly flashed across my mind that I might be the subject of aconite poisoning. I immediately induced vomiting by irritating my fauces with my fingers and so got rid of the small quantity ingested. Afterwards I drank a strong solution of "ba-tsa" literally translated "cow-salt", but impure soda encrusting the ground near salt lakes. On examining the end of the unused egg I found a minute hole into which the aconite had been inserted. Needless to say, after these unfriendly advances, I did not remain any longer in that village but made off as soon as night fell.

In this way many personal enemies are got rid of and as the law dealing with murder is inefficiently administered in the capital and still less so in

the provinces, the deserving retribution does not often overtake the murderer. In fact, greater precautions are taken to prevent sheep and goats becoming poisoned than people for when flocks of sheep enter a valley in which aconite exists, they are each one accommodated with a muzzle which is taken off again when they arrive at the safe pasture.

DISEASES OF THE EYE.

Generally speaking, the Thibetans have very good sight and in some of the oldest people whose eyes I examined, errors in refraction were at a minimum.

The general optic efficiency was far above that of the people of this country.

The commonest affections of the eye are blepharitis, trachoma and cataract. The former is very common and due to the irritation caused by smoke as the houses are without chimneys and consequently are always full of smoke. In many cases this becomes so chronic that the eye-lashes are lost, giving the person a weird and unhealthy look. Added to this both cold and snow-blindness cause a lot of inflammation so much so that permanent blindness often results.

For cataract which results partly from constant irritation and partly from age, nothing is done, the persons so affected remaining blind for the rest of their life. They are not treated unkindly, however, and it is a common occurrence to see such a blind one strapped to the saddle of a mule and be carried whither his friends were going.

Of injuries to the eyes, the only one worthy of special note is due to a form of torture common in the Central part of Thibet. Here little hooks connected by strings are fastened in the lower eye-lids as well as in the chest by which means the former are constantly drawn down and prevented from closing. The hands are also pinioned so that the captive cannot release the strings. The physical agony which such a person suffers is terrible to witness. cannot sleep and if he attempts to blink he suffers excruciating agony. As a rule these hooks are removed after several days although often they are left in until they ulcerate out. Slit under eyelids are thus not uncommon and of course a person who has thus been treated is a marked man for life and is general+ ly shunned as a rogue.

The only spectacles worn by the Thibetans are those to protect them from the glare of the snow. These are shades formed of a texture of horsehair

which are worn vertically over each eye.

Optical perception - a picture of objects being formed on the retina by reflected rays of light - is frequently spoken about in some of the older Thibetan medical works, some of which have existed over one thousand years. It was merely guessed by Thibetan science and not ascertained by observation and research.

DISEASES OF THE EAR.

These may be summed up as follows: -

- 1. Common earache due to intense cold.
- 2. Deafness due to mechanical obstruction by wax.
- 3. Injuries to the lobe of the ear.

In regard to common earache, Thibetans suffer intensely from the cold blasts impinging on the tympanum. To protect themselves from this the men generally wear a helmet which protects the ear whilst the women wear a fur covering.

Injuries to the lobe of the ear are caused by that part being torn by heavy pendants - the Thibetan women wearing pendants of metal and turquoise which reach down below the shoulder. These pendants are seized by infants which are being carried and a smart

tug suffices to make a nasty tear. A form of punishment is indulged in also whereby the lobe is
pierced with an arrow which is allowed to hang there
for a given time.

PARTURITION.

The birth of a child in Thibet is attended with much pomp and ceremony. Indeed the whole proceedings from impregnation onwards are sacredly main-In the first instance, where polyandry is the custom, one man respects the privacy which his cohusband demands during sexual intercourse. It is the custom at such times to place outside the room door where such an act is being indulged in a large piece of wood specially kept for the occasion. Until this has been removed no one dare enter the chamber. Photograph copies of the sexual act from drawings made by an ancient Buddhist artist are appended herewith. Photograph B represents really a religious In it is represented the view of the ceremony. house, in the right hand room of which are the bridal pair and in the left hand room a Lama praying that the offspring may be a Buddha. Close to the partition will be noticed a Thibetan in the act of

oage 49)

eavesdropping. Outside the house and at the bottom of the picture are depicted four Lamas supposed to be gazing into a vessel of magic water by which they prophesy the sex of the hoped for child. Photograph C. shows a more detailed view of the act in question. (page 50)

Immediately preceding the time of birth and also at the time portents are eagerly looked for. physical change may be noted and there are commonly recorded in Buddhist lore cases where small plants have suddenly grown from out the wall of the room in which the child was being born. Other portents on record are for milk to descend instead of rain and for snow to fall during the summer. These all go to show that the coming child has been specially endowed with some of the attributes of Buddha.

The delivery of the woman is undertaken either by a kinswoman or by the Priests and birth takes place in the kneeling position over a vessel of holy water, into which the child is allowed to fall and until which it must not be handled (see Photographs D. and E.). This is the only occasion on which the Lamas ask no fee, for if a Buddha should be born great glory would accrue to them for the part they would have played in assisting him into the world. If the priests do not deliver the woman it is imperative that a kinswoman should undertake the work for

which she has as a reward a new dress.

As a rule, parturition did not strike me as being attended with all the difficulties met with in this country. An old priest, over 70 years of age, who had delivered over 2,000 children during his lifetime, stated that he had only seen one woman die and he attributed her death to religious grounds entirely. After the birth of the child the woman stands in the erect position until the placenta comes away which is thus greatly assisted by gravity. Should any portion be left behind it is scraped away with a spoon. After this, the woman lies in the recumbent position for some hours but next day is about her work again as usual, thus giving additional evidence to the recently advanced theory that the habitual recumbence for ten days is not an absolute necessity to well-being.

On one occasion only did I have an opportunity of demonstrating our western methods. It was in the case of a woman who had been in labour for 48 hours and neither the prayers of the Lamas or the attentions of the midwives could induce the birth of the child. When I heard of the case and asked permission to see the woman, the priests at first refused stating that it was the decision of the Buddhas that she must die. But after arguing with them in a friendly

manner, however, they allowed me to not only see her but do what I could for her. This was more out of curiosity than otherwise. As, however, I had promised them that they should have all the credit for any good that happened, they were perfectly willing that I should do anything. I found on examination that the child occupied a right occipito-posterior position and was firmly fixed. My difficulty was that I had no instruments. However, I went to a native blacksmith and he fashioned me two blades to my design which was very primitive, thus:-



These, after much boiling in as septic a pan as could be wished for, I applied to the child's head, and in a few moments had delivered a still-born child. This was not mourned as it happened to be a female. The woman did quite well and was about again within

the week whilst the priests did not omit to take to themselves all the glory which I promised them should be theirs.

After this I saw a curious ceremony. A large offering had to be made by the combined household of the woman referred to. This consisted of sheep, grain, butter and Thibetan silver coins. These were gathered together and the officiating Lama mixed together a potion consisting of the "ten impurities" which consist of five kinds of flesh (including human flesh), excrements, urine, blood, marrow and one other which I could not divine. These, all mixed together, were transubstantiated by charms and changed into "bdud-rtsi" or "nectar", a small quantity of which was tasted by the devotees with the Lama at This delicious (?) drink is considered their head. of great importance by the mystics who seek to obtain spiritual gifts by witchcraft. Hence every offering is sprinkled with this potion.

GYNECOLOGY.

This art is as helpless amongst the Thibetans as that of Obstetrics. This for two reasons, firstly, the absence of the science; secondly, to the

fact that the uterus is an emblem of contamination, and any contact with it except for the express purpose of parturition is forbidden. The only interference I have known has been in cases of incomplete abortion when the spoon referred to above, which, by the way is kept in varying sizes, is introduced and the uterus roughly curetted. As evidence of the contaminating influence of the uterus may be cited the re-iterated belief in the older Buddhist books that on this account "all Buddhas are not born like other mortals, but come forth out of the side of the breast".

Dysmenorrhoea is unknown, or at least uncomplained of, its absence possibly being influenced by the high altitude and low temperature. Menorrhagia and Metrorrhagia pass unnoticed. The menstrual period amongst Thibetan women is much shorter than in more Western Countries, averaging three to four days, and the amount of fluid lost is much less.

CONCLUSION.

Much might be written on the peculiar treatment adopted in many minor ailments but as they are alone interesting from the point of view of curiosity and have no scientific bearing, they have been omitted here.

Two cardinal facts exist in connection with Medicine and Surgery in Thibet and they are these:

- 1. There exists no definite Science, such knowledge as there is being derived from the study of old Buddhist and Sanskrit lore.
- 2. It is wholly controlled by religious fanaticism exerted by the influence of the Buddhist Lamas.

This latter is illustrated by Photograph X. herewith. . In it is depicted a house in which sickness has occurred. In the room on the right the patient is in bed, evidently in an emaciated condition, and a priest is in the act of feeling his pulse. side in the adjoining room another priest sits amidst charms of all kinds - some (those on the table) being composed of butter and rice, others (on the floor) being made of cotton thread wound around a wooden frame of definite shape. The priest is sitting at his drum which he beats incessantly day and night, being relieved every few hours by another priest. All this is to keep away and drive away the Evil Spirit which is causing the sickness. For this work he receives about 1/- per day plus his food and plenty of "chang" (Thibetan beer). When the patient

is recovering, during one night at a time privately arranged by the priests, they rush about the house as if suddenly become mad and eventually, having exorcised the evil spirit which enters into some of their charms, they rush outside and burn them in a big bonfire and at the same time discharge firearms. This is the end of the case.

Unfortunately it must be many years before these things can change. Education they refuse, and as the country is over-run with Lamas any good influence brought to bear upon the layman is speedily destroyed by the action of the Lamas who call down upon the infidel all the worst maledictions possible. He in fear has perforce to amend his ways or else incur their displeasure which they do not omit to arrange shall be in a very tangible form.

My own observations extended nearly into three years and would fill many folios. I have endeavoured to give a peep in these few pages into the state of Medical Science in what has ever been the Great Closed Land.

Once I was within four days' journey of Lhassa, and I was in the hopes of shortly being the first Englishman to enter that city, but it was not to be. One day I came across a Tartar camp, in which were about 60 Tartars, who are half Mongolians and half

These bands wander along the trade routes Chinese. from China into Thibet, and waylay and mauraud caravans passing to and fro. I thought, however, that they would yield to the persuasive influence of my dental skill as others had yielded, and so went boldly into their camp, seeing that I could not avoid it. and declared myself. My presence, however, was not tolerated. They roughly seized me and took everything I had, leaving me only in my clothes. them I wished to go to Lhassa, and that they were welcome to all I had if they would let me go on. said that if I went to Lhassa I should certainly be killed and that it would be better if they killed me instead. I did not relish this and threatened them with all the terrors of British punishment once they Their only action was to bind my hands were caught. and feet and put me in a tent, which was closely guarded during the following night. Fortunately I slept, but early next morning I was awakened by the noise of the camp being struck, and later on a couple of men came and carried me out into the open. told me they were going to kill me, so that the punishment which I had threatened them with should not be possible, and therewith told me to open my mouth. This I declined to do, knowing that they were going to choke me, as is their custom, by pouring large

quantities of roast barley flour down my throat.

This absorbs the moisture from the mouth, and the remainder which cannot be swallowed is inhaled into the lungs causing suffocation. On my refusing, one of the men put the point of his sword between my teeth and levered my jaws apart, while another man put the hilt of his sword between my back molar teeth so that I could not shut my mouth. From a little bag they poured the roast barley flour ("tsamba") into my mouth, and the only recollection that I have is of choking and fainting, believing at the time that it was my last moment on earth.

When I came to consciousness it would be about seven hours afterwards. I was still bound, and my mouth was still full of the "tsamba". I think my choking must have cleared a lot of it from my respiratory passages, and my fainting leading the robbers to believe I was dying, they left me before the traces of their action should be found. All this happened on twelve feet of hard snow, and at a temperature well below freezing point. My legs and arms were fast, and I had to roll over and over for about a quarter of a mile until I came to a little stream trickling between the rocks. After washing my burning mouth and throat, I looked for a sharp stone, on which I turned my back and rubbed the bamboo thongs

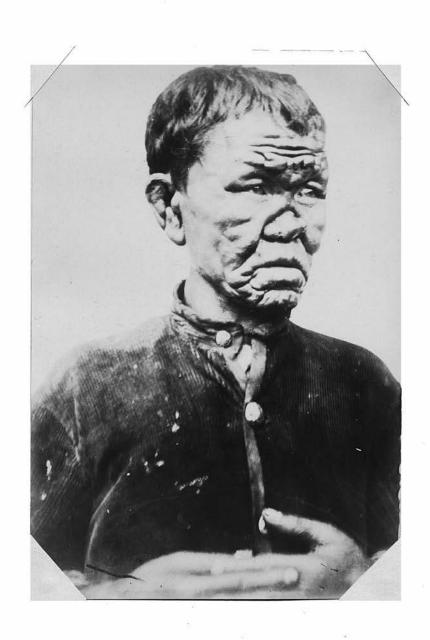
which bound my hands upon its sharp edge. These eventually became worn through and gave way, and I was afterwards able to take a small piece of sharp stone and relieve my ankles of their bonds. I then stood once more a free man, seven months' journey from India, with nothing either in the way of food or clothes except the few scanty garments which the robbers had left me.

This is not the place to deal with my long journey back into India, but needless to say I was thankful once more to find myself within the bounds of civilization.

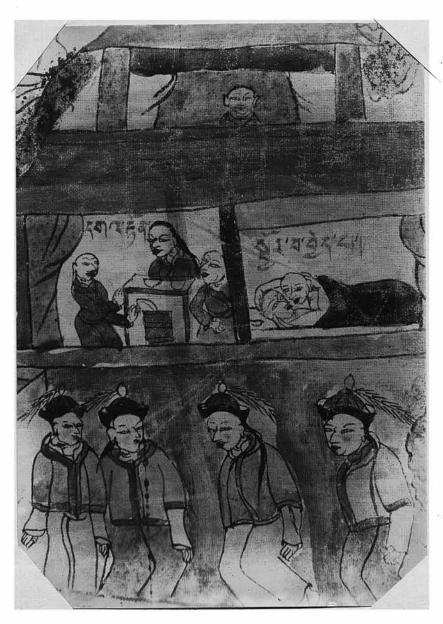
Finis.



1. On less hand side Amputation of Senis 2 · right · (about) Dissembowselling female for imposity.

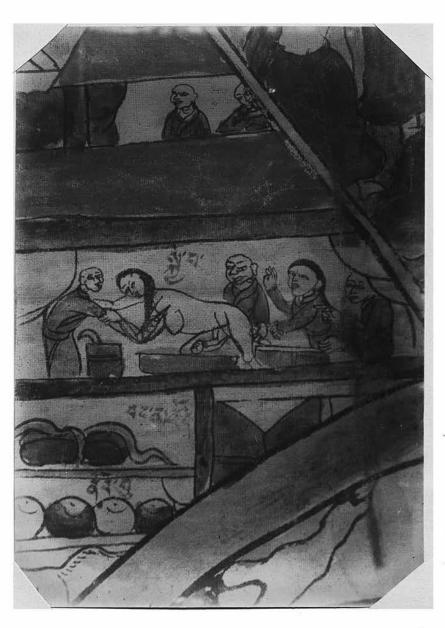


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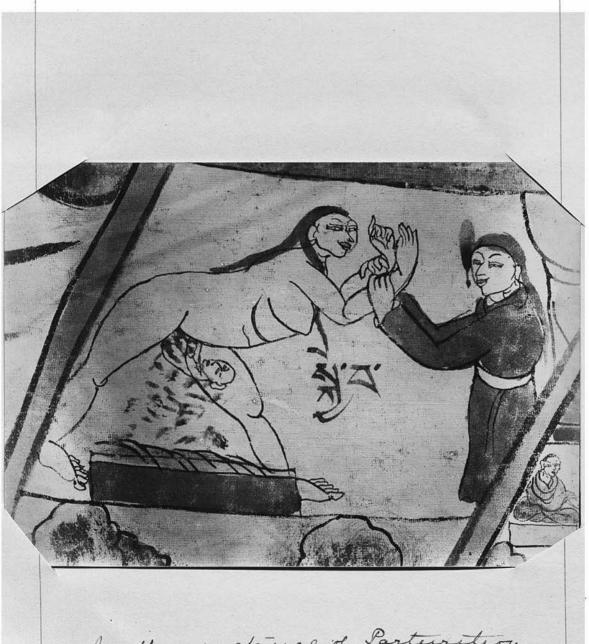


lepresents secural intercourse which is greatly a religious act. Without (in the room on the left) prayers are being offered for the berth of a Buddha. Below are four priests divining the sex of the chief by gazing into magic water to this dame water writes of absent husbands look to as to see if they are faithful while away.





She buth of a chied managed by Lames. Noe the chied about to fall ento the holy water.



Parterition

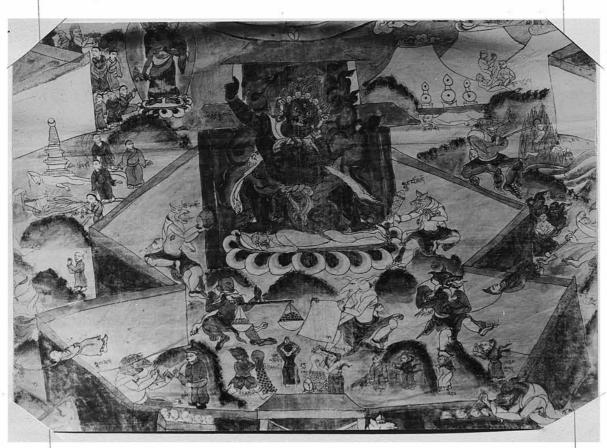


he name general of Frakces.

h the sick room (right) priest doctor attending to patient.

h the adjoining room (left) briest with drive and charmes made of butter and rice Endeardwring to exorcise the Evil spirit causing the sickness.

Below, a devil dog charmed onlinde the love to que warning of approach of Evil spirits



I centre, abort, Judgung denty.

" below man in act of hipplecation.

He has just entered the other world and hought with here his good and bad works represented by a sack of black balls (bad works) and a sack of while balls (good works). Here are being weighed in a balance by a demore. If there is a preponderance of good works the spent is transmigrated wito an animal. If of bad works some such sternal pernishment is awarded if which instances are seen in the manging.