



The Motor Cycle
January 1911

The railway journey from the Far East to Europe is certainly as a rule a tedious kind of undertaking, and it was to seek some change from this mode of travelling that I determined to choose the motor cycle as means of transport for at least part of the way. I would ride across Mongolia to Lake Baikal, and if time permitted continue right home on the same mount. I had only four months for the whole European journey, so it was from the beginning questionable whether the whole overland journey would be accomplished.

My machine is a four-cylinder F.N. (1909), on which I had covered in China 300 miles (I thought this was a fair trial, but was grievously mistaken), fitted by Chinese carpenters with the following fixtures: (a) A wooden board was fixed with iron frames and screws on the handle-bars, (2) a pack-saddle of extra hard wood was placed across the middle over the tool bags, and (3) a large board carrying a Chinese pigskin box was screwed on the luggage carrier at the back. All these boards had their surfaces pierced with numerous holes, so that I could strap or tie all kinds of odds and ends firmly on to them. On the front boards over the handlebars I carried bedding and tent; on the pack saddle two leather bags with carbide, spare parts, waterproof coat, and knee-protectors; and on the other side a leather valise with photographic utensils, toilet things, reserve provisions, etc. On the back carrier came petrol, oil, blow lamp, medicine box, spare parts, and tools. Altogether the luggage weighed over 100 lbs., but I had to throw away a good deal later, as it was certainly too heavy.

Establishment of petrol depots.

My first step was the establishment of depots of petrol and provisions on the road from Kalgan across the desert to Urga, a distance of about 700 miles. For this job—which was no joke—I chose a young Chinese boy who had been in my employ some years. Upon asking him, and pointing out the nature of the undertaking, he at once and most cheerfully agreed to go.

This boy—named Chi-Chang-Fu— would endeavour to hire in Kalgan two

camels, and also engage a Mongol interpreter, and this little caravan would thereupon travel across the Gobi desert following the telegraph. At suitable distances they would deposit petrol and provisions, either at the three telegraph stations or in Mongol tents by the road. They would give the Mongols red flags to hoist above the tents, and also mark the name of the place, and especially the number on the telegraph pole which was nearest. On this point I laid great stress. Chi-Chang-Fu would, upon completion of this job, telegraph to me from Urga, and then return post-haste to meet me in Kalgan with all information regarding the depots and the road itself.

The road from Peking to Baikal can be divided from a motoring point of view into three parts : (1) Climbing by an atrocious road up a steep rocky valley on to the Mongolian tableland. (2) Then fairly good level country from above Kalgan to near Urga. (3) Hilly country north of Urga, bad sands, and morasses, before reaching Baikal.

Colonel Anderson, of the British Legation Guards, gave me valuable assistance and saw me off; Colonel C. D. Bruce, Superintendent of Police, Shanghai, lent me a splendid map (British Intelligence Department) of Mongolia. My stores and eatables were all-British, such as Bovril (used every day) and Lazenby's soup tablets.

After a busy time, greatly assisted by kind friends in Peking, and a short trial trip in the morning, I set out from the Wagon-Lit Hotel in Peking at 2.30 p.m. on June 2nd, 1910. A small crowd cheered when the machine willingly started, with its heavy burden. On the good macadamised roads in Peking I began to experience early the curse of the heavy luggage, which would have tempted a saint to use sulphurous language. Things began to drop off, but this was only a beginning. Worse was to follow.

The heat that afternoon on the Peking plain was at its worst. I made slow progress, often mistaking the road towards north-west, and landed finally in the dark in a ditch with the back wheel self-locked. Not being on good form, I gave up the job of lifting 3 cwts. out of the ditch, and set out on foot to call villagers to



The author and his four-cylinder F.N.

help. With the aid of my acetylene lamp, these kindly villagers afterwards dragged the cycle over a fearful road to the Railway Hotel in Nan-Kow, only thirty miles from Peking. Not a very successful beginning! And thoroughly exhausted did I feel after it.

Ascent to the Great Wall.

Nan-Kow means the southern mouth, and is the opening of the valley that leads up to the point where the Great Wall crosses over at Pa-Ta-Ling. Numerous old towers, walls, and other fortifications bear testimony to the Chinaman's dread of invasion from the Tartar and Mongol hordes. This is the old high road to Mongolia. A railway has now been built along the old road from Peking to Kalgan.

I tried first to ride by the side of this railway, but innumerable bridges and tunnels soon frustrated the attempt. I had then to hire three coolies, who dragged the machine with ropes. The road is not a road—it is a staircase, yet sometimes it loses all regularity and becomes more like a stone quarry.

Over huge boulders and in deep ruts my poor F.N. had to bump her way forward, the frame standing the test well, but the tyres showed unpleasant signs of wear on the sides.

The sun set when I was just below the high ridge where the Great Wall runs across. I pitched my little canvas tent, which was made so as to cover the F.N. and myself, but as ill luck would have it, a furious thunderstorm broke over us in the night. The lightning was terrible, looking intensely violet, and the peals of thunder echoed thousand fold between the hills. Having camped in a valley or gorge, I expected every minute the dreaded shan-shin or mountain torrent to sweep down on me, this being a peculiar Chinese phenomenon when the water comes down like a wall. Later the gale rose to a hurricane, and blew both the machine and tent over. I had to recover money and other belongings by mining in the sand.

Feeling very sad and shaky, I proceeded to cross over the pass and through the Old Wall, which is here in good repair. Some American tourists photographed me, and on learning of my plan kindly offered the remark that " You must have the heart of a lion! " But I felt very far from a lion just then after such a terrible night.

The road after crossing the Pa-Ta-Ling, however, showed some improvement, and I could mount the machine occasionally, and also use the path alongside the railway. The latter alternative had, however, its drawbacks.

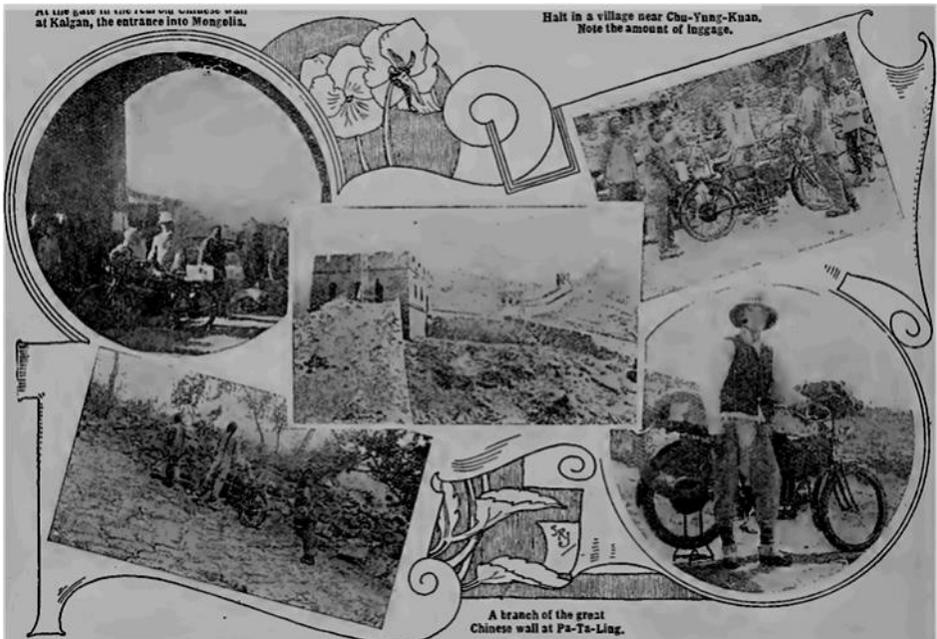
Sometimes the path on the side of the ballast got so narrow that innumerable falls were the result. Occasionally, just when enjoying a good spin, I would encounter a bridge, and had to cross this unaided by lifting the cycle—3 cwts.—on the line itself. Walking on the sleepers, with the yawning abyss between and on both sides, and a high wind making the whole cycle and myself sway,

was decidedly exciting. People do not waste time and money on hand-rails, planks, or gangways in Chinese railway building, and I used to detest these black stones which marked a bridge in the distance.

Another very uncomfortable experience was that the petrol consumption was proving abnormally high. I noticed this, and calculated with extreme misgivings that under the circumstances my petrol depots in the desert, which were reckoned at least doubly sufficient, would hardly carry me through. I thought this consumption was caused, by heavy luggage, which was probably partly true, but after arriving in Kalgan I found the other reason to be a clogged carburetter gauze. It will be seen, however, that the petrol consumption still continued to be very heavy.

The country gets very sterile and sandy near Hsian-Hua-Fu, the sand from the desert actually blowing in huge waves over the city wall, forty feet high. Riding against a terrible head wind, without daring to use the goggles on the risky, narrow path high up on the railway embankment, is not pleasurable.

Blue and brown all over my body, and bruised as I was by many falls, I arrived at Kalgan on June 6th at 9 p.m. The cyclometer, which in Pekin had stood at 320 miles, now showed 450. The hotel at Kalgan is not unlike an Italian ostina, with huge vines growing over the whole courtyard. Naturally, I did justice to the refreshments and food to be had there.



I was very pleased to meet in Kalgan my servant, Chi-Chang-Fu, who had arrived only a few days before. He had accomplished his difficult task with accuracy and dispatch, and presented me with a complete list of names and places where he had deposited petrol and stores in the desert. His Mongol interpreter gave me some useful sentences in his own language, which I wrote down. The Europeans in Kalgan did their utmost to render useful assistance, especially Mr. Brisher, of the British-American Tobacco Co., who was indefatigable in his efforts to meet my numerous demands.

A local fitter from the railway engine shops worked for a day on the F.N., the innumerable falls from the railway embankment necessitating various repairs, such as straightening pedal spindles and handle-bars which were bent, fixing with bolts the luggage carrier at the back, and so on. I myself took the carburetter to pieces. The heavy petrol consumption was a cause of grave anxiety to me, as it meant that there would be scarcity during the desert journey. I discovered that only a few pinholes were left in the carburetter air inlet gauze. This cleaned, I hoped that less petrol would be used, and in this I was to some extent correct, although the consumption was nearly double the quantity I had originally calculated.

The Start Across the Desert.

After spending two days in Kalgan I set out on the serious part of the journey—across the desert. It was like a ship leaving the safe harbour to sail over, the boundless ocean. Chi-Chang-Fu accompanied, me up the Hanor-Ba, a very nasty rocky slope above Kalgan, the last staircase up on to the Mongolian tableland. I hired some men, and we all worked hard pulling the heavily laden machine up the awful slope. I admit I was nearly exhausted at the top, and could only steer the machine badly when I began to use it under engine power. The real old Great Wall passes here, a rampart built of stone brown with age; in places it is so dilapidated that a horse can be ridden across. Before parting from my faithful servant I photographed him with the motor cycle and the wall in the background.

I was now alone, with the next place of comparative comfort and civilisation — Urga — nearly 800 miles off. And a sorry start I had ; the road was stony, and I was so tired I could not control my machine. Falls ensued, bruises, blue marks, bent pedals. These proceedings went on practically the remaining part of that day, and in the evening, as a change, I ran into deep sand, than which nothing is more cruel for a motor cyclist. I was nearly dead with fatigue when I ended that night in a kindly Chinese settler's home.

I admit frankly that next morning found me very much depressed and down in the mouth. The previous day's experiences were not encouraging, and how could I know that I should not have 700 miles of the same sufferings in front of me.

But, as I found very often to be the case on this journey, when the clouds

were most dark, the sun suddenly peeped through. This day — the 10th of June -- I did some very nice spins on fairly good roads, and no sand was encountered. The green fields of the Chinese emigrants were left behind, and a green prairie broken by low ridges took their place. The country —although absolutely treeless—looked rather nice with plenty of green grass and wild flowers. But already a terrible lack of humanity made the land look desolate.

The poor F.N., with her enormous load, did not like the ridges either, and failed very badly on the slopes. I can't say that I particularly enjoyed the heavy drudgery of pushing her up the heaviest inclines, so to improve matters I loosened the exhaust pipes and placed them outside the silencer. The increase in power was remarkable, but the sound of the exhaust was like a Maxim gun now.

Sometimes I met caravans of camels loaded with merchandise and guided by Mongols in bright red or yellow garments. The roar of the exhaust made the camels dance about very friskily. The Mongols were interested, and some tried to race me, but in vain.

I was now approaching telegraph pole No. 1,538, and was anxious to know how the Mongols had treated my petrol depot, which should be in a tent near by at a place named Bong-Hing. I found everything O.K.—red flag hoisted and petrol can inside. So far the Mongols had turned up trumps, but, of course, I could not know how things would pan out further north.

I had done 100 miles only when rain came on (I was not yet in the arid zone), and with it innumerable troubles. Magneto terminals got wet and engine misfired very badly, then the back tyre punctured. Being only twelve miles from the next depot at pole Pang-Tse No. 3,033, name Kau-Bar, I tried to bluff it out and ride home on the deflated tyre. This played havoc with the back wheel; the air tube got out and wound itself to shreds on the back hub; the rim got so dented that it held together only through a miracle. Yes, it was a foolhardy attempt to ride like this at the beginning of the journey. After all, I could not make Kau-Bar, but spent the night in a Mongol tent six miles away.

Next day, June 11th., was so bad that I nearly gave up the whole attempt. I put a new inner tube in the old cover, but scarcely had I ridden ten miles before the tube burst. I had now only one such tube left: if I put in this one, there would be absolutely none in reserve to use for the whole remaining part right up to Baikal. Things looked decidedly dark. Besides, I had never taken out the back wheel, and now this had to be done so as to put on the reserve tyre I had brought with me. To do this out on the lonely road when one doesn't know how, but is forced to refer to books and papers, and, to crown all, with a hurricane blowing with squalls of rain, was not a cheering job. The wind tried to blow away all the lighter part of my outfit, including the instructions for the back tyre changing. A kindly and intelligent Mongol came along, and we worked with grim determination on the back wheel. The back mudguard had

broken off its fastening, and I threw it away now ; nor did I fasten the hand brake again—I was too weary to do it. There was no time to take a meal, and I was fast getting thin on these exertions. My yellow khaki suit with leather leggings is blotched and streaky with oil and mud, and I can already fold it double in front; it is getting too wide, and I am shrinking! That miserable day I did only ten miles in all.

Better going with New Cover.

June 12th. Diary says: "Better now with new cover." This new tyre cover was a substantial looking construction, with leather band and steel-studded. But I had no spares left, and I was obliged to start the desert journey absolutely reliant upon the perishable articles fitted.

At noon I arrived at the telegraph station. Pang-Kiang or Ho-Ma-Hu, 160 miles from Kalgan. and was most kindly received by the Chinese telegraph clerk. Mr. Johnson, who kindly entered in my diary date and hour of my arrival. His wife, who is a very pretty little woman, gave me some fine silver wire, which proved useful in cleaning the carburetter jet. Mr. J. gave me a substantial lunch a la Chinoise.

The country was getting horribly brown and sterile now. No more grass or wild flowers, only a few blades of hard grey-green weeds. The desert is near, and I see the usual phenomenon of Fata Morgana, (mirage) and feel the dryness of the atmosphere. It is not thirst, it is a peculiar drying up of the body; the throat is parched, and the lips crack and bleed. From the desert the wind carries sand which deposits on the southern slopes. Can there be anything worse than sand for the motorist? You try to bluff it by driving full speed into it, but soon—perhaps in the middle—the wheels are held fast as in glue and you have a fall. Then it is impossible to start the engine ; you cannot push the cycle fast enough. The only way out is to get a strap round your shoulders and drag inch by inch, the wheels sinking ankle deep in the treacherous element. I could at that time well imagine the labours of Polar explorers dragging their sledges.

Crossing the Lonely Desert.

Right in the loneliness of the desert there lies a great Lama temple named Hertu-Sume, a temple not built at all in Chinese style, but with its white plain walls slightly sloping inwards, and at the top a magnificent broad relief in sculptured, blood-red brick, with huge round brass plates polished and shining like the sun. This I photographed, the priests looking on suspiciously, and all avoiding the camera as if it were the fiend.

That night I could not arrive at any depot of mine, so I went far out of the way to reach some tents in the distance. The poor Mongols, however, were terrified at both man and machine, and although I proffered silver in big lumps, they threw it on the ground and refused shelter. I once thought of forcing en-

trance, but would not scare the poor ignorant people, so I made my way very disconsolately back to a well. I pitched my tent, crept underneath beside the oil-dripping engine, threw myself down just as I was, too tired as usual to prepare any food.

Dire Difficulties and Welcome Chinese.

Monday, June 13th. Good start, but road afterwards disappointing; bumps and stones. Many scores of antelopes came quite near. Graceful animals like roe-deer.

The road descends in a basin, a horrible devil's cauldron, parched by the sun and glistening with a white deposit of soda. How I longed to see the next depot, pole Wu-Tse No. 1,950, name Yen-Pille. But, as mentioned, the petrol consumption had always exceeded calculations, and now yesterday's passing through sandy patches, often at full throttle, had simply run away with the all-important essence. Result, petrol gave out right in the middle of above-mentioned place. The emergency petrol only lasted a few minutes, and there I was, left alone with a machine as dead as a door nail. Luckily, although I had not eaten much for several days, I had at least had the precaution to fill a gallon can with water. Now I was going to push the 3 cwts. of dead material; I did so, and promised myself a drink of water at every telegraph pole passed. This worked well in the beginning, but soon the oil clogged and the machine got simply impossible to push. Weary and desperate, I led it behind a little hillock, where I left it, and began to set out on foot towards the next depot. But in the scorching heat I did not enjoy this walk at all, and started out on the side of the road towards a caravan camp I saw in the distance. Here I encountered a rather cool welcome, the Chinese looking suspiciously at a lonely khaki-clad individual without any baggage or provisions. When I got a Mongol with a horse and rope to drag the cycle into camp, they became more interested, and I spent the rest of the day in their camp. The rest did me so much good that in the evening I participated in athletic exercises which the young lads, in the camp arranged. We did high jump, tug-of-war, and vaulting over the huge piles of merchandise which formed the camel loads. That night I slept in the merchant's tent.

June 14th. A Mongol came in at three o'clock in the pitch darkness, and made tea over a blazing fire of camel dung. Now that the Chinese were going to break camp they wanted to leave me in the lurch, but I stuck to them like a leech, and had some of the lads to help to push the motor some miles. Then when they saw I meant business, an older Mongol came forward and hitched a camel on to the machine with two long ropes. The ugly brute looked out of the corner of his eye, didn't like the job, and began kicking out furiously at the machine with his long legs.. But by and by, after a tiresome morning, we arrived at Yen-Pille, and it was a rare joy to catch sight of the big red can of petrol the bottle of stout, and the fine English tin of provisions, all looking so civi-

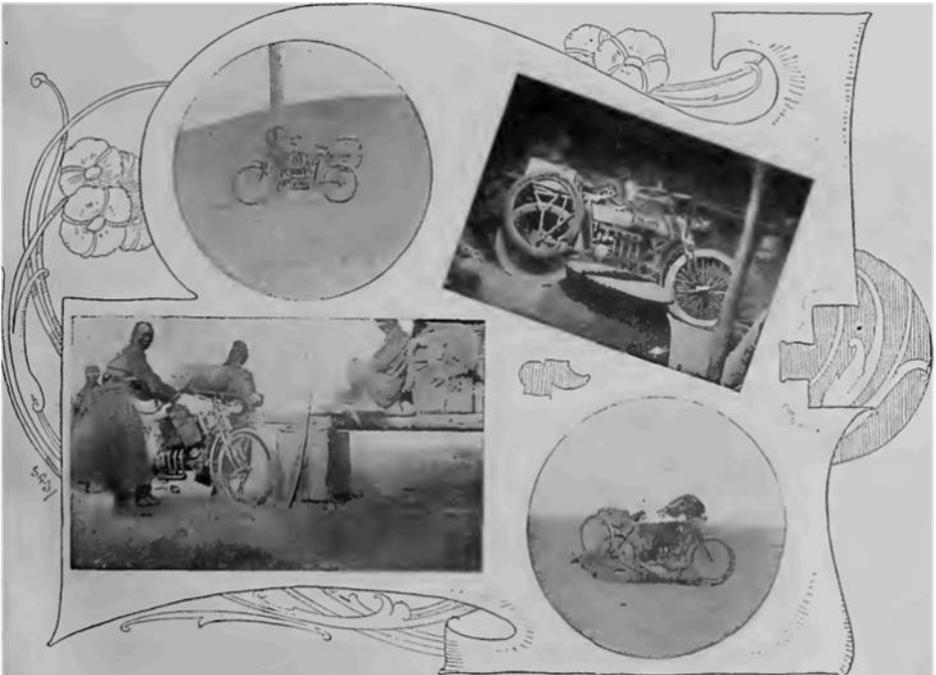
lised here in the wilds. Here at Yen-Pille there are bogs and salty morasses white with incrustations. In 1907 one of the Pekin Paris cars got stuck here, so the people told me.

Udde the Middle of Mongolia.

For once I now had a fine spin; the road was tolerable, though the sterility of the land was complete Here reigned only death and desolation. Thousands of corpses of horses, camels, and oxen lined the road in all stages of decomposition, some with the fur still on, some with white ribs that, glistened in the sun. I saw a man, a Chinaman in blue clothes, lying there also. I thought he was ill, so I wheeled up to him. But he had passed beyond human help, his body being already discoloured, and flies in swarms all round.

I was nearing the telegraph station Udde now, which is just in the middle of Mongolia. The lubricating oil was running short, but still that would not account for the horrible grinding noise I heard from the back gear. It was like a steel saw cutting iron rails, and would truly cut to the heart every motorist who likes his machine.

Udde is a terribly lonely place, some Chinese huts below a great black jagged rock, and no life all around, poor telegraph clerks, who must live here for



years! I spent a night with these unlucky people, who received me kindly.

Next morning, June 15th, after photographing my hosts, I set out again, the gear grinding hard as ever. I had got a new supply of oil, and injected it everywhere, but to no avail. At last, luckily near a caravan camp, the cycle came to a standstill, the engine tuning round, but the back wheel was immovable. This was a terrible shock to me. I thought an accident had happened which I could not possibly repair, viz., the stripping of the cogs in the back gear. I was just going back to the station to telegraph, "Finished; cogs stripped," and was pondering lugubriously over the fact that here at Udde I was as far from anywhere as I could possibly be.

I sat down and racked my brain for several minutes to find some way out of it. Then set to work to take off the gear case, when I found my supposition was true, the cogs were stripped, but I saw that it was only their tops that had come off. If I could make the cog wheels come nearer to each other the thing would perhaps work. Very much perhaps, but still, I now recognised that the accident was not the fault of the makers—it was that mudguard, which I had thrown away, and whose fasteners had served as washers to keep the cog wheels together. A handy Mongol and myself now filed and bored washers for all our worth for several hours until twelve noon, when to my joy I saw the connection between power and wheel was established. I remunerated the good Mongol and was off and to my intense satisfaction made a very nice spin of eighty-two miles that afternoon to the next depot, Sair-Ussu. The F.N., a reformed character, was taken into the tent and photographed.

The country I had traversed consisted of a series of flat, broad valleys, where the line of telegraph poles can be seen to an enormous distance. Often one hundred poles in one valley (seven poles to a li. or twenty-one to an English mile).

June 16th. My diary says : " The first really splendid and successful day." Yes, after all the heart-breaking experiences of the first part of the journey, it was delightful to skip over the country, the telegraph poles rushing past with commendable regularity. Country terribly empty, but ground good for motoring, hard or covered with small stones. I could ride just as well at the side of the road. It should be noted that when I am speaking about "the road" in Mongolia, I mean only the track where the camels have gone, no road-making having been done here. In places the ground was covered by fine red and yellow agate stones. I photographed the cycle in a cheerful, idyllic place between black rocks, with a human skull and bones in the foreground. After 100 miles excellent run I stopped some time at my depot, Tao-Tse, No. 3,713 Charava, where I found petrol and everything in excellent condition. Then off again at 4.30 p.m. Country gets greener now, the desert is losing its sway, and bustards, badgers, and antelopes reappear. It was pretty to see the antelopes race with the cycle. Some tried to cross in front, and got so near I could have

shot them with a revolver: A splendid run over thirty miles of green plain brought me to the depot De-Li-Go at 8 p.m. The people in N. Mongolia seem to be a slightly different race. The men wear high peaked yellow, hats or flat caps of long curly sheeps' fur, the women fix up their hair like an elephant's ears at both sides of the head. These "ears" are kept standing right out by wooden sticks. They dress most gaudily in red and blue silks.

The country got very hilly now, and I had hard work pushing the machine up the worst slopes. For a marvel, too, I saw pine trees, the first since leaving Kalgan. The weather was cold, the wind from Siberia freezing me to the bone, and all the hills were glistening white with snow.

Intense Cold and Rain to Urga.

The next day, June 17th, was still intensely cold, with a driving rain right against me; I tried to put on a good speed, but the rain-drops made the face smart like whip-lashes. The machine lost power considerably on account of the head wind, and although now quite close to Urga, I could not make that place that day. Stiffened by the cold Siberian wind I landed in a Mongol tent in the dark, only ten miles from Urga. The tent was uncommonly dirty, even as Mongol standards go, but the inhabitants kindly as usual. A sheep was killed and cooked in a big iron pot; the old woman picked out a whole handful of meat with her fingers and offered it to me. Although I could not quite recognise what parts of the sheep's anatomy I was having, I made a brave attempt to eat some.

June 18th. The diary says: "Still bad weather; cold head wind." I very soon got within sight of Urga, Square black towers, Chinese fashion, to the west in a long valley below a fine pine-clad ridge. As usual it was almost impossible to get there. There; were morasses, stones, and several knee-deep streams separating me from the city, and I had to get men to carry or cart the motor cycle over. These last three, miles took me half a day. Urga consists of three cities- one temple city full of Lama priests, one Chinese trading mart, and one Russian settlement with a garrison of Cossacks and consulate and bank. I found my depot in the latter building, but learned to my regret that no depots had been established north of Urga. This meant that I must arrange some fast transport to follow me if possible.

Here I met a Swede, Mr. Larson, a great sporting-looking fellow in khaki, with thin aquiline features. He is the best known white man amongst all the Mongols. He kindly invited me to stay with him, and his advice was invaluable for the purpose of fitting out the little transport caravan that was to follow me to the North. With Mr. L. resided temporarily an American traveller, Mr. Cox, and we decided to keep company to Kiachta, he riding with some Mongols on fast horses, which also carried my petrol.

I rested two days in Urga and took numerous photographs in this highly interesting place, where the marvellous mixture of all kinds of yellow and white

people provides worthy subjects for the camera. The head of all Buddhists in Mongolia, the "Huo-Fo," or living Buddha, upon learning of my arrival from Mr. Larson, expressed a desire to see me, and I rode over to his temple below the fine pine-clad mountain south of Urga. The "god" was an intelligent looking man of thirty odd years. He was slightly afraid of the motor cycle, but wanted a car very badly. Mr. Larson had by now fitted us up splendidly with tent, fur coat, and good horses, and provided us with two men.

Beautiful Country and Glorious Weather.

June 20th. Started at noon towards the North. Very hilly country, occasional terrible slopes, covered with huge stones and water running over them. The Russians made a road here, but as usual it has been allowed to run to seed, the territory being still Chinese, but they do not care, as it is far from any-



where.

The country is rather fine and well watered; lovely green hills with pines, birches, and wild flowers combined to form peaceful, pastoral scenes. The weather, too, was glorious.

June 21st. Good progress made, but I had to lie in waiting for the horsemen nearly two-thirds of the time, the motor cycle, of course, being so much the faster. The American made a picturesque sight, riding a white horse and wearing a bright red sweater; this stood out well against the green slopes. The road did not follow the telegraph line now, and the Mongols' advice was most useful. Country mildly hilly, and larks sang day and night. June 22nd. Reached about noon the Chara-Gol, a fairly big river running east-west. The machine was carried over on a ferry boat made of dug-out enormous pine tree trunks. The horses swam across. Soon we got into a large birch forest in a valley that got very swampy; fearful hard work to push and drag. Water was running everywhere, making the ground treacherous. As usual, the machine fell on its side many times, and my poor camera was squashed and broken badly, but I got it glued together by Mongols the same night. We spent two or three hours in that ascent through the swampy birch forest before reaching the slope, then came an awfully steep, rocky descent. I began to coast down this, but lost the pedals, and, having no other brake, the machine ran headlong down over the rocks. Sometimes I was above the handle-bars, sometimes over the luggage carrier, the bumps being such that I expected the whole frame to break asunder. At last the whole toppled over with a deafening crash. The Mongols shouted in their anxiety, and I fully expected that the machine was in a thousand pieces. But the F.N. turned up a trumps also this time; it was only the rubber cushion on the spring fork that had split in two places by the terrible shocks.

The engine was as good as ever, and I rode merrily into a Mongol camp. There was a fairish stream to cross, so, putting on full speed, I lifted my feet high, and, surrounded by water spouts, negotiated it successfully. In another little river I was crossing like this, a herd of sheep was walking before me. The last few sheep were not over when I came on like a tornado. I could not stop, of course, in the middle of the stream, so I ran right into the posterior part of an old ram. He got a terrible impetus from behind and was shoved over the stream before he knew what was going on.

To induce good feeling, I rode the motor chasing some Mongol girls round their tents. They enjoyed this hide-and-seek immensely, and I noticed their glistening teeth and saw bright black eyes look slyly out from all corners in the camp, and all was fun and laughter. Good quarters; hospitable, friendly people.

June 23rd. Diary says : " Slow but agreeable progress." Lovely air and temperature. I lie waiting for horses most of the time, as the road is quite intolerable.

ble.

June 24th. Country almost bare like middle Mongolia. We cross today the large Tro river. Here we find some machinery for the large gold mines further to the east. These mines are worked by Russian capital and Chinese labour, and very successfully, too.

A lovely valley to the north, luxurious wild flowers, red and yellow lilies. I nearly ran into a bog near Ibitsikh; I met here that treacherous morass that Borghese mentions in his diary over the Pekin-Paris journey. This ground looks quite hard and good, but if you step on it the surface under you goes up and down like waves. If your machine penetrates the crust you are in a bad way.

Russia at Last.

Immediately north of Ibitsikh we enter a stately pine forest, a strange sensation when you come from China and Mongolia. When coming out from this, on the other side of a flat valley, you see white houses, churches with green cupolas and crosses that shine golden in the sun. It is Russia; it is Kiachta!

I had the last good spin in old China and was then absorbed by the manifold formalities necessary to enter "holy Russia." Coming from the free and easy life in the Oriental countries, I felt this particularly disagreeable, although the officials kindly did their best to shorten proceedings. My introduction by letter from Pekin to the local Russo-Chinese Bank was particularly useful.

June 26th. I was off with full kit (very heavy) at 1 p.m. Plenty of difficulties. Lost in pine wood, stuck in morasses and deep sand, etc., almost as bad as in the Gobi. Country is looking rather bad with sparse population of Buryats, a kind of Russianised Mongol.

June 27th. Diary says: " Most distressing day with sand patches, slopes, river crossings, greedy, disagreeable Buryats, and, to crown it all, no petrol to be had in Selenginsh, the next town." I was now alone again, and had no convenient transport with me. I had to telegraph for petrol, and the waste of time was awful. That petrol cost me 14 roubles (28s) for a tankful.

This part of Siberia seems hopeless, no agriculture, bleak, dry, and windy. Every other Russian you meet is a soldier.

June 28th. I have a rather successful run north-wards ; in the evening white churches and green roofs appear on the other side of a big river, it is Verknie-Udinsk, and the river is the Selenga. The screeching of locomotives is heard, and I recognised the great Siberian railway but it is hard to get there. I land finally in a morass and am saved only by the assistance of a kind muschik, who nearly lost his boots in the attempt, but gained a welcome reward for his labours. In Verknie-Udinsk I got an awful dinner in a Jew-restaurant (cost 3 roubles). I had perspired much while working through the morass; now it got icily cold in the night; result, bad cold in the stomach, and I got very ill before

morning. I first swallowed all the chlorodyne (opium drops) I had brought with me across Gobi; this did not help; then I took the opposite, and drank castor oil in large quantities. I had to be my own doctor, nobody, of course, looking after me. The whole of next day I was feeling shaky, but started in the evening, wanting at all costs to get away from Verknie-Udinsk. This was June 29th.

My Last Day.

June 30th. This is the last day. I made a rather satisfactory run to Kubansk, 65 versts, and then on the old "tract" or Siberian highway—now overgrown and disused, and very bad for cycling—to Pasolsk (40v.). At last I perceived the vast glittering expanse of the Baikal lake, the high mountains barely sighted on the other shore. Our goal was reached. I shipped the faithful F.N. into a boat, and our common sufferings were ended. I had taken twenty-eight days (inclusive of a rest of some five or six days) from Pekin to Baikal. The F.N. was in good form, but, unfortunately, time did not permit me to continue, which was a pity, as the great high road from Irkutsk towards the west is exceedingly fine.

I have only praise for the machine; the accidents to it were entirely the fault of the rider and his insufficient experience. The engine itself, when it did not rain too hard, actually never failed, and upon coming home to Europe again I used the machine without any repair for hundreds of miles just as it was when I reached Baikal. Yes, I travelled some way with a person on the carrier behind, and the much-travelled F.N. even stood this test brilliantly. And if it were necessary and desirable to dedicate this article to anybody, I would do it to my brave little companion in joys and sorrows, who carried me so valiantly over prairie and desert, over hills and through rivers—to the willing little machine, and no other.

Erik Nystrom. Hellekis, Sweden.

1908 FN 413CC FOUR

Like BSA, La Fabrique Nationale d'Armes de Guerre ('FN', for short) began as a munitions manufacturer, turning to the production of motorcycles in 1900. Today the Belgian company is best remembered for its sensational four-cylinder models, the first of which appeared in 1904 and was first exhibited publicly at the 1905 Paris Cycle Show. Designed by Paul Kelecom, the FN was the world's first practical four-cylinder motorcycle, its smooth, almost vibration-less operation setting it apart from rival singles and v-twins. Advanced for its day, the 362cc air-cooled four featured 'atmospheric' inlet and mechanical (side) exhaust valves, a robust five-bearing crankshaft, individual crankcase oil wells ensuring adequate lubrication for the connecting rods, and reliable Bosch magneto ignition. Shaft final drive was another innovation. Supported on ball bearings, the driveshaft ran inside the right-hand frame member to a bevel gear on the rear axle.

At first there was no clutch, the direct-drive machine being started by pedalling away until the engine fired. Two brakes (drum and rim-type) both operated on the rear wheel. The engine was enlarged (to 413cc) in 1906 and again around 1908, on this occasion to 498cc, and in 1911 the factory introduced its own two-speed transmission, similar to that already offered by Horstmann in Britain, which was contained within the drive-shaft housing.

