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The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

P. G. Russell

Hsin fu, Yunan,
March 24th, 1922.

My dear Dr. Fairchild:

Two days ago I arrived at Hsinfu. Why it is called a Fu city I do not know; it contains 30 houses in all, a mud wall one can step over, four gates, and one soldier at the north gate only. We left Puerfu seven days ago after a very interesting and profitable stay, but such can happen in a strange country in a five days' journey. If you look on Davis' map of Yunan you will find a place called Mopo. It is one stage from the salt mines of Mohei and two stages from Puerfu. Well, the trail led up and down from 6000 to 3000 feet and up again 6000 ft. two three times a day, that is the order. The mountains are much denuded, and at night are invariably on fire. While the Chinese have much progressed in many ways which made a great impression on me, I must say that agriculture and forestry have been entirely neglected. Well, to come back to Mopo, we left there early in the morning and proceeded as far as Lan Ka tsui, which you will not find on the map, but there we had lunch and up to that place everything was peaceful. We left our noon camp about 1 p.m., the trail followed a stream bed and then turned at a sharp angle to the right, high mountains towering above us. At the parting of the trail there was a hill about 200 feet high with an old stone wall on the top, the whole commanding a strategic position. My soldier escort comprised four men, two were with me and two with my horse caravan which was still getting ready to leave from the noon stop. My soldiers were a little ahead of me, and all at once when we came to the turn of the trail which led into a deep gorge, I heard and saw them loading their rifles and pointing up the hill. There appeared 15 robbers on the top from behind the stone wall. They all were armed, and I thought, well we were in for a scrap. We were the only four people, so we retreated, and we called the rest in the meantime, hiding behind rocks. We called the caravan together, and in all we were 23 men; when the robbers saw our number, they disappeared again behind the wall. Some of us went up the gorge continuously watching the bandits whose heads appeared above the wall. Thank goodness we were left alone and no shots were fired. I can tell you that it was an anxious moment for me. The country we passed through was very wild and weird, tall steep mountains and the ridges and tops pine clad. The soldiers watched continuously the hillsides. Only last week several were killed in this gorge. We arrived safely at our next resting place, which was Manpieh. There we slept in a school house, tired from the hard up and down trail; but sleep was not ours. Some people living in the schoolhouse got to fighting at 1 a.m. and kept up a quarrel till early morning. Dogs barked all night - no rest. We started again the next day for a place called Man lien.

It is prominently marked on Davis' map. At Manpieh we got again four soldiers. They looked like robbers themselves, no uniform and armed with muzzle loaders of a. 1854. It was again wild and weird country which we traversed, anxious eyes watching every hillside but only lonely graves met our eyes. We thought, well, Manlien will be a nice place, but to our surprise we found that the village had been abandoned, not a scull in sight, only tumble down houses, the walls standing, here and there a roof through which the stars shone brightly. The soldiers were absolutely ignorant, but they informed us that a band of robbers were seen here a few days ago back of this forsaken village. So we took possession of a tumbled down house, barricaded the place as best as possible and went to bed. The air was very heavy and during the day it was very hot and as expected a thunder storm came up during the night, which kept us awake for most of the night, so no rest again. This is not meant as a complaint but just to give you an idea of the conditions down here, and that travel, at least in this part of Yunan, is not all pleasant. The whole of the black river valley is a very unhealthy place. As soon as we descended into the valley everyone had a severe headache, and I was ready for a nervous collapse. The air is full of poisonous gases, which make this part of the country uninhabitable. Nothing but forsaken houses and graveyards. On the tops of the ridges it is cool and pleasant, but there is no water. We encountered another thunder storm in this valley and finally reached Heinfu above mentioned. A curious incident I must record. Not far from Heinfu, we met some peasant folk. The soldiers were walking ahead of me, and as soon as they spied them they fled, taking them for robbers, much to the delight of the soldiers who took advantage of the situation and began to run too. As soon as I caught up with them I stopped them and prevented them from scaring these poor people. Well, it rained hard for two days, the first rain since I left Chiengnai on December 30th last year. We are occupying a shrine dedicated to Confucius on the top of a hill overlooking Heinfu. It is like a stronghold which we barricade for the night. Here it has been very quiet and peaceful and we enjoyed a much needed rest. Tomorrow we leave for Enlo and Chingtung; for 5 days we will have to travel yet in the black river valley of evil repute, but I know we will reach Chingtung safely. On the way to Manpieh I found what I think is *Prunus triflora*. It is a very early fruiting species when all the other *Prunus* are in flower. It is a fine looking tree, some 45 feet or more in height, spineless and perfectly clean, a lovely tree which grows at heights of 6000 feet only. I think it will make a good stock plant. It is called in to (Chinese characters) by the Chinese. They eat the fruits but they are sour and unpalatable. I am getting along fine with the Chinese and especially with the officials. All our conversations are by writing, much to their delight. We play the game like the deaf and dumb. I ought to carry a slate along but native paper is cheap. I am getting quite used to writing long epistles in Chinese. Once in a while I find a soldier who has some knowledge of the written language, and we ask each other many questions. I think it is much better to know how to write,

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Chingtung

which is understood all over China, than to know one dialect, which is useless fifty miles away from a place. There is not much to collect here, but I found out from the official here who called on me just a short time ago that walnuts, Juglans manchurica, are found wild near Chingtung. I understand that in Chingtung there is an American missionary lady all alone. I hope to see her and get information from her. We were informed in Mohei that bandits have captured four cities, Menztse among them. Most of the fighting and most of the robbers are in the eastern part of Yunan, in the west there are only small bands which ~~we~~ will not molest us. I will wire you on my arrival in Tengyueh.

Yours in the work as ever faithfully,

(Sgd) J. F. Rock.

Talifu,
April 20, 1922.

My dear Dr. Fairchild:-

We arrived in Talifu about 5 days ago. I sent you a wire announcing the fact and also that I am very well; this out of door life agrees with me. I hate getting into towns on account of the unsanitary conditions, flies by the millions, one can't eat properly; it is to me a great plague, these flies. The ruins are horrible, so I have sent soldiers always ahead with my card for the chief official asking him to prepare a temple for me, and since I have adopted this method I have been quite comfortable.

I am very sorry that I have not much to send just now, as of course this is the flowering season and the fruits will not come in until August, so I am reconnoitering a bit and resting a bit from this long and strenuous journey from Bangkok up to here. Four months, continuously on the road putting up with all kinds of conditions is a bit trying. But I like the out of doors and am better out of, than in a town. I am sending you by registered letter mail, as parcels take 1 1/2 months to Yunnan from here alone, seeds of Rubus flavus, a very strong and hardy raspberry from the highlands of Yunnan, it grows six to eight feet in height but is very spiny. The fruits are small but juicy and sweet, with little acidity to make it pleasant; they are the size of the ordinary raspberry, and of course nothing like the Hawaiian ones, but the flavor is better, perhaps a cross between these two yellow species would make a fine combination. This Yunnan species is firmer than the Hawaiian fruits.

Another package contains seed of the Prunus Pseudo-cerasus type but there are so many varieties and I have not sufficient literature with me to determine it. It may be between Prunus pseudo-cerasus and Prunus serrulata. There seems to be some misunderstanding between these two species. This one is a fine tree, and the most prolific bearer of any Prunus I ever saw, the tree was one mass of dark red from the fruits, the foliage is large and of a beautiful green, perfectly clean, no fungi, no insect pests of any kind. I have not seen the flower, but judging from the thousands upon thousands of fruits on the one tree, it must be a beautiful sight in the flowering season which I judge must be in the winter months, as the fruits are ripe in February and March when the other species are coming into flowers.

I am also sending you seed of one of the best species of Yunnan pears, the Wo or Hopalli. It is fairly large, the size of an apple, is yellow (citron) with red cheeks, hence the name, touched by the fire pear. I will send cuttings later in the season. There are many varieties of pears here and I will do my best to secure them. Lichiangfu is the best pear place in Yunnan, and I shall have to go up there soon. Sugar cane is also grown near Taliu on the other side of the lake. This will no doubt be of interest to you. That grown in the Black River and Red River Valley is free of the mosaic disease as far as I could see, all the leaves being of an even dark green. The annual fair was on when I reached Taliu and thousands of people had come, also many Tibetans.

Today I am going up into the mountains climbing the 14000 foot peak back of Taliu. It is covered with snow now. All the Rhododendrons are in flower and the mountains are a gorgeous sight. After my return from the range in about four days I will go to Teugyne, all my people with me now will return from there to Siam via Burma, they are useless in this country and too expensive. Servants can be hired much cheaper here and better ones. The Siamese are lazy and a useless lot. As soon as they have a few cents they dress up and play the dandy, elegantly dressed up vacuums. I shall be glad to get rid of them. I will have to pay their way to Siam. My so-called companion is of course no companion to me, and we have been on a quite different footing than what I thought it would be. He has lived for 23 years in Chiengaroi and has dropped in to native ways, the same slow, careless ways of an Asiatic, hence of course no companionship possible. He has become thoroughly convinced that traveling alone is the thing. There are no handicaps then.

Well I shall make either Tali or Teugyne my headquarters for the rainy season which is about to commence next month. If I go out into Burma now I wont be able to get back before the rainy season commences, and if I wait till the rainy season is over it will be too late for the chestnuts.

It takes 12 days to Burma from Teugyne and 12 from Teugyne to Taliu. There are no bridges over some of the rivers near the British border and rivers are impassable even in October or November.

Forrest is due about in a week from now coming from Teugyne. I will wait to see him. Kingdom Ward has gone up to the Tibetan border and passed through here about a month ago. The best time to get into Yunnan is now or a little earlier, just before the rainy season, then one can be on the place for the fruiting season. It is difficult for me to get provisions in now. I am almost to the end as it is also with cash, that is, ready cash. I hope you will have deposited some money at Shanghai (Hongkong Shanghai Banking Corporation) as Shanghai checks can be sold easily here at a 25% premium, as there is no risk attached in transmitting.

The political conditions here are very disturbing at present, a new governor has come and driven out the old one. All his supporters are bandits, thousands of them, and the leaders will get responsible positions now. The people of Tali were much worried as the old governor of Yunnanfu was marching with his loyal troops (bandits) on to Tali to capture it as it is one of the most important revenue places, but he was intercepted by a loyal robber chief and his adherents who were promised positions by the new governor, and so he flew towards Szechuan. Such are the conditions now. All the wires were down, and have only been restored since yesterday when I sent the wire to you.

I hope to have some mail in Teugyne and will write to you definitely about my plans. I have mailed by parcel post eight packages of plants collected en route.

Hoping that you are well, I remain, with kindest greetings to your self, Mrs. Fairchild, Nancy Graham and the Office force, as always,

Faithfully,

(Signed) Rock.

Handwritten: *Plumwood to Mrs. Russell*

COPY.

Talifu, Sept. 22/1922.

My dear Dr. Fairchild:

Since writing you this morning I have mailed additional parcels. I got a lot of walnuts, they grow wild in the mountains of Yangpi; the walnuts are very large for wild ones and have a very thin shell, they are delicious and if improved in America should make a first class walnut. I sent four large packages by letter mail, they are perfectly fresh. Another package contains tubers of an aroid, I do not know the genus nor species, the Chinese call it Yee tao (Chinese characters***). It grows in dry ground, has a taro-like leaf, but the flower stalk is 2-3 ft. long, pinkish-mauve and has a very slender spathe; the whole stalk spathe and flower are eaten; the tubers are white and grow in great numbers around the base of the main stem underground. The plant does not need (water) to be flooded but is grown like corn or wheat. The tubers are eaten as a substitute for potatoes, they are grown around Talifu. I am sending you cuttings of a citrus, it must be a citron; the fruit (not ripe now) attains the size of a child's head. It is candied and the whole of the fruit is eaten, it is called Hscong yueh (Chinese characters**) and is grown at Hertzung. They are neither grafted or budded nor are they grown from seeds, but simply cuttings are stuck into the ground and they are said to grow readily.

I am also sending you bud-wood of an especially fine pear, there are only few found in Tali; it is called the Tungli (Chinese characters ^二二) or winter pear, but it fruits in the early part of July; it is the earliest pear in Yunnan. The pear (I have not seen it myself) is said to be very large, sweet and juicy. I have sent you budwood of two other species, of the Gantz li and Ch ma li. I hope sincerely that they will arrive safely. All in all I have mailed to you 60 parcels by first class letter mail, and five by parcels post, making in all 65 parcels; this represents $3\frac{1}{2}$ days work. So you see when there are things to be collected we get them besides plants. I hope you will believe me that I am just as keen on getting this material to you as I am getting herbar-material. I will get all I can, and I can assure you that my staff and I keep busy, there is no idleness allowed.

I can't quite repeat everything I said about the various seeds, etc. in this letter, but you can get all the information from the labels. We leave early to-morrow, I had intended to go today, but as I was very tired and did not wish to get ill again, I thought I would stop, but we got busy and secured the additional material which

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we packed and mailed this evening. Now I am going to rest. I wish you could see the place I am staying; in the courtyard of sort of a military grand stand, there are several sheds and most of them are full of sick soldiers left to themselves, a few decent looking chaps I took pity on and treated them, they were covered with scab from head to foot, there are quite a number of them. I mixed sulphur and lard and made an ointment and had them rubbed all over with it; they were in a terrible condition, raw flesh and encrusted finger thick with scab. The rest of them lie around and smoke opium, such are my surroundings. Well, I shall soon be out again in the wild, thank God there are clean (wild) places to go to.

I close with the kindest greetings and best wishes, as always,

Sincerely yours,

J. F. Rock.

Tengyueh, Yunan,
November 1, 1922.

My dear Dr. Fairchild:

Your very kind letter of Sept. 6th, written from Nova Scotia, reached me on my return to Tengyueh yesterday, Oct. 31st, 1922, from a chestnut hunt into the mountains southwest from here near Hsiang Ta - Lung ling. My thoughts were often with you and Mrs. Fairchild and my heartfelt sympathies went out to you as soon as Mr. Fergusson told me of Dr. Bell's death. There are no papers at all in Yunan, save one in Yunanfu, and that is a French one; the people here do not read much, for few know the art; the more important merchants, and you can count them on the fingers of one hand, take Shanghai papers, which are over a month old when they reach this province. To learn anything from newspapers in this part of the world is as much as to look up to the stars for news. I do not think you people have any idea of the backwardness of this part of China and its mode of transportation, its roads, etc. I could never realize it myself until I actually came in contact with the people. In the whole province there are only two doctors and one of them is a Hindu. The people simply live and die like animals in the woods. They have no idea of time or business nor any conception of truth and honor. If you have any dealings whatsoever with anybody of this province, you must at once take for granted that he is a perverter of the truth and that he will cheat and squeeze to the best of his ability and in that they are costable. There is an indifference to everything and anything, and everybody is for himself only. There is displayed an egotism equalled nowhere in this world. The people are simply exasperating, yet their country is so beautiful, so lovely and so inspiring that it is hard to believe that anyone living in such a lovely country can be so base. Well, I went out to Lungling and Hsiang ta to hunt for chestnuts. It took me 8 days to get to Hsiang ta and five days back to Tengyueh, rain, continuous downpour, no pleasure I can assure you, to camp under such circumstances. It was difficult to cook. We had to do it under an umbrella, but it gets awful tiresome to tramp, tramp, tramp in pouring rain. Well I did not give up the search till I got the chestnuts. There are five species of Castanopsis but no Castanea. Those I sent to you, collected west of Tali, do not occur here, and I am very glad that I was able to secure them. Those found near Lung ling and in the Shweli watershed basin are also small fruited species, but huge trees, all well over 80 ft. and over 90, some reaching 100 feet in height, with trunks 6 feet in diameter. The largest, tallest growing species has the largest fruits. The burs are 3 inches in diameter and even more, but of these, unfortunately, I could not even get one single nut. They do not fruit every year, and, as it happened, this their off year and not a single tree, and I examined many that had no fruit whatsoever; dead ones littered the ground, but, of course, of no use, save for

specimens. It is very close to the Siamese Castanopsis, but much larger in every way. One a small fruited species, with small brown nuts, is also a very large tree 80-90 ft. tall, with trunks 3-4 ft. in diameter. It is one of the loveliest trees I know; the foliage is simply exquisite, and the shape of the tree is beautiful; foliage down to the ground, small leaves, a rich deep green, and golden brown beneath, silvery when young, a most prolific bearer. This species grows in the south of Yunnan, as far north as Sze-mao but not further. It is very common near Muang Hai where it forms forests. I sent you photos of a grove with a man standing in the center of the path, also a flowering branch pinned against the trunk. Here southwest of Tengyueh the species reaches much larger dimensions than south of Sze-mao. I am sending you about 15 bags of seed of this small fruited species, No. 6716.

The third species is also a large tree with a huge spreading crown; the trees were loaded with burs, but every nut was empty of every tree I examined. I do not think there would have been one good nut in ten thousand, so there was no use wasting time, and so I moved on. The fourth species is a smaller tree about 45 to 50 ft., with larger nuts and burs, resembling very much *C. armata*, but the leaves are different. This species is scarce, and I got only a limited amount (No. 6715). The fifth species (No. 6714) is also a smaller tree about 50 ft., with trunks about 1-3 feet in diameter. The nuts are small, angular, black and shining. The involucre resembles *C. armata* but is smaller. I cannot place these two.

I think the whole Castanea business needs revision, and I would love to do it, as I would the Chaumococcy trees, but it means time. Both of these are important subjects. Will you back me up in this? All these trees grow in well drained sandy soil, quartz and disintegrated granite. All grow on steep slopes. I am going to send with these chestnuts seeds of wild pears I found in the high mountains near Hsiang ta, elevation 7000 ft., a height at which also the chestnuts grow. There are two species of wild pears there, large healthy trees (No. 6720), with small fruits. The leaves of one are bronze colored, and, when the tree is loaded with the golden reddish brown globose fruits, it is a lovely sight. They must look beautiful when in flower. The other species has large ovate heart shaped leaves and resembles *P. raphia* from the south. Perhaps it is var. *Kumacui* (6718). I also got two species of wild persimmons with sweet edible fruits, one with large fruits (6719), the other with quite small fruits (No. 6717). Besides these I found a large wild apple tree, elev. 6700 ft., large fruits (for a wild species), somewhat oblong-ovoid, yellowish green, very aromatic, almost like a quince, but the seed arrangement is entirely different. Perhaps it is a wild pear. There is not much difference in pears and apples anyway, and Engler classes them all under *Pyrus* or is it *Malus*. I have forgotten. The leaves of this wild apple are dark green above and silvery beneath, a handsome species (No. 6721). It grows with Castanopsis (No. 6716).

In closing, I cannot help relating you an experience I had on my return trip from the mountains of Hsiang ta to Lung ling.

It throws a light on the character of the people of this part of the world. Between Lung ling and Hsiang ta, there is one large valley, quite deep and broad, and this valley has in its central portion many ridges running longitudinally with the two high main ridges, forming the main valley. These ridges are very steep and densely wooded. Well, on the first one coming from Hsiang ta, in dense forest, on a sandy, wet trail, I saw a man lying on the ground with his knees up, so I could not see his face. I was on horseback, the trail was narrow, and so I called out to him to get up but received no answer. His knees were shaking. I got off and went up to him. Death looked from his staring eyes. I examined him and found that he was badly hurt. He had received a blow from somebody with a rough piece of wood. From his neck to the center of his breast he was laid open, ending in a five inch broad wound, the skin and fat hanging in rags from him. He was ice cold and shivering. I felt his pulse and, when I touched his hand, he was terrified. He could not speak. He was out of his mind. Now we met about 6 people that morning who passed by him, but never a word they said to us, nor did they give him any help. I gave him some brandy, and we prepared a litter from bamboo, and two of my men carried him up and down over the most awful trail imaginable. I had a soldier with me, and him I sent ahead to get somebody to help carry him to Lung ling. My caravan was still behind, so I could not get at my medicine chest, but his terrible wound was running with pus; in such condition he was lying in the cold, wet sand 2 days and 2 night. That he was not dead was a wonder to me. Well, we carried him down to the last valley, where there were some rice fields and about 15 men cutting rice. We got four to carry him from there to Lung ling, a distance of about 5 miles. I promised to pay them for doing this for that poor devil. Finally we arrived at Lung ling and went to a temple and there I cleaned his wound and bandaged him up well, gave him a shirt, etc., as his clothing was soaked in blood and pus. I paid the men a dollar and they went back; but before doing so, they stopped and had a bite to eat in Lung ling. As it happened (I did not know this), these four men did not own the rice field but were employed by a lung ling man to cut the rice for him, and when he saw them in Lung ling, he raised a terrible howl, and cursed me up and down. What right had I to take his men from the field wasting their time carrying that man to Lung ling. He also held up my men and the soldier, scolding them to the top of his voice and telling them that he is going to report us and all my men to the magistrate of Lung ling. When my soldier escort told me that, my ire was so aroused that I was almost capable of doing anything to that man. So I took a big stick, took the soldiers with me to show me the man, and I went down to the market where that wretch had a shop. A crowd followed us. We came up to the man; he was leaning against the wall surrounded by friends, laughing, filthy as a pig and as fat. The soldier pointed him out. I made one dash for him, grabbed him by the throat and pulled him out into the street, a multitude of people watching me. I pushed him against a wall and threatened to give him such a beating as he would remember his whole life. I talked to him till I was hoarse, holding on

to his throat for half an hour. Not a sound came from his lips, he was scared to death. I held him out to the crowd and had my interpreter tell them what I thought of such a wretch. He lost face terribly. Now, I said, we are not through yet. Now I am going to take you to the magistrate to whom you wanted to report me. His friends pleaded with me, but I said no, I have no mercy for such a wretch. And I made the soldier take him along. We went to the magistrate, followed by the whole of Lung ling. The magistrate was a nice chap and felt ashamed for that fellow. His ire was aroused somewhat. I said, he insulted me and my men, and I insist that he shall be punished accordingly. He was put in jail forthwith, sentence was pronounced then and there, 6 weeks in prison and sweeping the streets. I thought the people should see this lesson. Of course, there are no facilities for injured or sick people. The magistrate sent bedding for the poor injured man. I dressed him next morning, all the skin, pus and fat I removed, cleaned the wound thoroughly, powdered it well with iodoform, and bandaged it securely. But the poor devil developed pneumonia. No wonder, having been in the cold wet forest in wet sand for 48 hours without a drink even. I had to leave him in the temple with a man sent by the magistrate to look after him. That man had the nerve to ask me for money to take care of this poor devil.

Such are the people of this province. God forbid that a similar fate should befall me; they would rob you of every cent and clothing, should they find you helpless somewhere.

With kindest regards, as always,

Most sincerely yours,

(Sgd) G. M. Rock.

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P.S. I have received from Miss Peterson seeds of wild pears and apples found near Puerhfu, also seeds of a large tree (*Diospyros*) with small sweet persimmons, called (Chinese character) by the Chinese.

In a few days I am going to start off for the mountains near Saden, but on the Chinese side, looking for chestnuts. Will report later.

Nov. 10th, 1922
Hpun Kaw, a Kachin village on the
top of a mountain.

My dear Dr. Fairchild:

While I am writing this epistle to you it is pouring. Rain descends in sheets onto my feeble tent; this has been going on all night and now it is noon and no prospects of clear weather. The elevation here is about 5000 ft. or perhaps higher. The ridge on which this miserable village is perched is covered with forest, the trees being of immense height. There are many chestnut trees, but they are all of one species and their nuts are empty, every one. As you may guess, I am still chestnut hunting, notwithstanding the fact that I have sent you bags upon bags of chestnuts of five species, not including those sent from Tali and Yangpi, true wild chestnuts. I want to make a clean sweep of the chestnuts of this region and so shortly after my return from Lung ling and Hsiangta - Mang shi, I set out for the Shansi gorge on the Mitkyina - Sado - Chinese border which has an elevation of 9300 ft. There must be chestnuts and from what I have heard from people en route many chestnuts occur. The trip from Tengyue to this part of the province is indeed a hard one. The trail, while not so bad in places, is very narrow. We have met nobody en route so far; no caravans frequent this place, besides the mountain ranges to be crossed day after day make it very hard, for example, you descend from 8300 ft. to 5000 ft. and up again to 7000 ft. and down to 3200 ft. all in one day. The plain of Chensi is 3200 ft. elev. We passed through yesterday noon. The heat was stifling, humid, not a breath of wind, and my ears were ringing. We called on the Sawbwa, a half Shan with the bad manners of the Chinese of this region. We have two soldiers with us from Tengyue, but they insisted that as we were going into mountains inhabited by wild men (referring to the Kachins) we should ask the Sawbwa to send armed men with us who know the Kachin language, so he gave us four men armed with knives and spears and match-lock guns. We arrived, after passing over a most horrible rocky trail and crossing streams about 30 times during the afternoon, at 6:00 p. m. at this wretched village. The caravan was late, owing to the bad trail, and I had to wait till dark ere my tent was pitched. You cannot picture yourself the low standard of civilization of this wild race. You would shudder if you would see their houses, the roofs coming down to the ground, no windows, pitch dark inside, the floor only one foot above the ground. The pigs live in the small space beneath, rubbing their backs against the bamboo floor. In front of their houses before their very gates the carabao live. The mire and filth and stench is something awful; white painted discs hang in front to keep the devils out; outside, in front of the carabao living quarters there are usually 5-6 posts driven into the ground. To this they tie their cattle when they are

to be slaughtered, which is done by many with spears. Old blood sticking everywhere. They seem to be a cruel people, yet witty but without a conception of the value of things. They surrounded us yesterday and nearly would have appropriated everything had I not driven them off. I asked one to do a little work, and he demanded 5 rupees, while 50 cash would have been nearer the price. They remind me much of the Miasos but the latter are more civilized.

I hoped to get to Meng ka today, but it is impossible to travel in such weather. Still rain, rain, rain with occasional envelopments by clouds. All afternoon, in spite of the rain, the Kachins came to my tent to stare. The women are hideous beyond conception. They are the possessors of goiters which rival their heads in size. The men are not immune to goiter and with the addition of running eyes, teeth as black as coal from betel chewing and the filth of ages they make altogether a very unpleasant picture. They are armed to the teeth with huge knives from which they never part, not even for a minute during the day, and I doubt if at night. I was besieged for medicines all day. I wish you could have seen the gestures describing their ailments and their utterances, muffled as it were due to the presence of their goitres. Such is my intellectual companionship. I must say that I am longing for have a talk with some one of intelligence. It has been a long time since that happened. You may say what about the missionary. Well, here is an example. Judge for yourself. The Rev. Mr. Cook and I went up the mountain in Tali. The trail was wet, I slipped and just saved myself by grasping a bush. It was a Berberis and of course spiny. I carelessly said, why must this thing have spines? He immediately volunteered the information that God put them there owing to the sinfulness of man. I said I thought the probable reason of their presence was that some animal was perhaps very fond of the plant and it developed the spines as a matter of protection. He immediately disagreed; here in this province they seem to be all alike, save Miss Petersen of Szemao. There is one man in the southern part of Yunnan. He calls himself a missionary. The following are his methods of trying to convert the people: he lights a match and says to no particular party but to anyone he may meet, put your finger in this, feel it. This is what you are going to if you don't believe, etc..... I doubt if he has much success. So much for the intellectuality of this province. Prof. Gregory was a Godsend, but he stayed only for a day. Yes, you are right. I do love nature and the wildness of it, but these Kachins - well, everything has a limit, - still I prefer them to the town Chinese, for the former are frank, the latter hypocrites with their rude manners and air of superiority.

Mengka, Nov. 11th.

Before leaving our nasty camp in the Kachin village yesterday, the Kachins thought they would stage a little drama for our benefit. The head mule driver of my caravan placed all his mules and horses in a sort of corral and barricaded the gate; at midnight he got up to see about the animals. He found the gate open and one mule gone. In the morning we informed the Kachin chief that one mule had been stolen during the night in

the very center of his village. He said he knew nothing about it. The mule was gone, and we could not start, as we would have to leave one load behind. I went to see the chief and told him I would give him 15 minutes to bring the mule from its hiding place. He said he was sick and could do nothing. I found out that he had a horse, a rather strong pony, so I took possession of the pony, had it saddled; he said almost in tears that the horse belonged to his father-in-law, etc., etc. I said, well he could have his horse if he would get the mule stolen in his village, and furthermore insisted that he come to Mengka with the horse till they had gotten the mule and brought it to Mengka. He entered his house and in a jiffy he was gone, hiding in the forests. He knew the danger of being brought to Mengka to a Chinese official. So I left one soldier behind and took the chief's horse on to Mengka. We had not gone more than two miles when one of these savages comes up with the mule. All a little trick of their own. I made the fellow come all the way to Mengka, leaving the stolen mule, and told him if he said one more word about money I would pay him fine with a stick and perhaps a little interest added. I found out at Mengka that they are great thieves, steal horses, hide them and then would ask money for finding them. This time they got left. Perhaps this will teach them a little lesson for the future. It is still raining unusual for this time of the year. I am staying in the headman's house, the only decent place in Mengka, and you ought to see it. I am waiting here for better weather, and in the meantime sent out villagers to get chestnuts which they said grow in the mountains behind Mengka. My men are all having a cold (myself excepted) owing to this damp miserable rainy weather. I am going to camp at the top of the ridge called Chang ti fang. It forms the boundary between China and Burma on the Sadoon side; The English call it the Shansi gorge, and its height is 9300 ft. I shall mail all the chestnuts I hope to get at Sadoon in British territory and shall return to Tengyueh via Kou yung, said to be a better road. This trail marked on the Davis map as the main road is not at all frequented, no caravans pass here on the way to Mytkiyins; we have met nobody on the road save Kachins and Lisos. The former are very scared of the latter, as the Lisos have cross bows and the Kachins only knives. This is a rough wild country. If only the weather were decent I would not mind but in addition to all the other excitements and miserable surroundings, rain in this country means mud, mud, swollen rivers, etc. I have gathered two species of Malus in the forests here, one a tree 80-70 ft. with trunks 3 1/2 feet in diameter, bearing oval yellowish green apples about 2 inches in diameter; another a small red fruited species; also 2 wild pears, lily bulbs of a 12-15 ft. tall white flowered lily, seeds of a rosaceous tree 30-40 ft. tall. I think it is Dichotomanthus but I cannot be absolutely certain. When in flower it must be a gorgeous sight. It is now loaded with orange-red small fruits to such an extent that the leaves are absolutely hidden. The flowers are said to be white.

Another tree of which I am sending you seeds is a species

of Lindera, also a handsome tree 30 ft. or more, bearing scarlet drupes. The fruit flesh contains a white oily juice which is made into a sort of yellow wax, used for burning, keeping leather soft and for many other purposes. The wax, it cannot really be called wax, is more like congealed oil, very aromatic and pleasant. I have used it on my saddle, trunks, etc., and it is really splendid. I will send you a sample from Tengyueh where it is sold on the market. On the banks of the Taping ho (river) near the Chanai plain I found a wild lemon, a shrub 4-5 ft. tall spreading from the ground. The fruits are spherical, compressed but with a distinct knob at the apex, a bright orange yellow; on opening them I found them full of maggots of a fruit fly and all the seeds were destroyed also. I hoped to get you seeds of this most interesting plant, but not a single good one could be found. I took flowering and fruiting specimens for Mr. Swingle. On the banks of the Taping ho, in the most wild region imaginable, this shrub is common. I have not seen it elsewhere and all the natives ~~was~~asked said that it was wild only there, that they never cultivate it but do use the fruit. Will write later perhaps from Sadon.

Sadon, Nov. 15, 1923,
Burmese territory.

"Greetings from British Burmese soil." I left Mungka November 12th. What a disappointment after leaving the tiny plain and reaching the top of the immediate ridge surrounding the plain; a picture of absolute desolation lay before our eyes. Not a vestige of a tree or shrub, only grassy bare hills ruined by the Liso tribes which are settled here near the Burmese border. We climbed and climbed till we reached the very summit of the range 8300 ft., the border of Burma and China. There was nothing except a pile of rock on the left side of the trail, indicating the actual boundary. At the very summit on the peaks on each side there was dense forest, all thick jungle of Rhododendrons, Camellias, laurel trees, species of camphor, magnolias, all covered with moss, the latter hanging down from every branch yards long. It was a glorious day. There were many oaks but not a single chestnut. The forest was, however, wonderful, especially on the other side of the Chinese border. We camped at the very top in British territory. The autumn tints of the trees were gorgeous, the blood red of the maples, the yellows, brown, and bronze colors of the foliage of the many trees was wonderful to behold. Mixed with this marvelous vegetation were many species of Rhododendrons, one especially handsome, with leaves two feet long by one broad and bright silvery beneath. Unfortunately none were either in flower or in fruit. Amidst this glorious vegetation we camped on a level, grassy spot, the setting

sun painting the landscape a more brilliant hue. Hardly had the sun disappeared when the cold set in, a bitter cold which became more intense as the night advanced. The next morning we started down the mountain, our next stop being on the Chiemsho river at an elevation of 5000 ft. I wish I could describe to you the grandeur of the forests on the Burmese side. We gradually descended from the Rhododendron forest into the semi-tropical jungle; the trees 150 ft. and more in height, moss covered, with a canopy of branches interwoven to such an extent as to make the brightness of the midday sun appear as twilight. There were many species, their majestic trunks 5-6 and more feet in diameter, straight for 80-80 ft. without a branch, reminded me of the great colonnade of the Egyptian temples of Karnak and Luxor, as seen at their best in moonlight. I stood and marvelled at the glory of this forest. Owing to the height of the trees it was impossible to collect specimens nor was I enabled to find out what they were, as much as I would like to have; I had to content myself with the lower story of this forest which was in reach. Even the tree ferns reached a height of 40-50 ft. with floridous fronds 10-15 ft. long. Yes, lower down at about 8000 ft. elevation there were chestnut trees, majestic monarchs fully a hundred feet high but none in fruit, only old ones covered the ground and they were rotten.

Today we left Chieh ma ho at 7:00 a. m. and reached this place about 1:00 p.m. Sadon is simply a military post, one single white man (Mr. Wilson) is an orderly. The post is charmingly situated at 4500 ft. in the midst of the Kachin hills. Once more I am in a decent house. There is a lovely Bsk bungalow, the luxury of a bath room, an unheard of thing in China, and a glorious view over the hills, the Tabu yun mountain, the guardian sentinel, 11,200 ft., of the range forming the Chinese-Burmese border to the east, to the west the plains of Burma, a glittering silvery band way in the distance, the upper Irrawady, 3 days' journey from here. I am going to stay here a day to pack my seeds which I will mail from this place instead of taking them back to Chins. I will then turn northwards and return to Tengyue via Wan hkyung, Kham bai ti and Kuyung, a northerly route where I hope to be more successful as regards chestnuts. The weather has evidently changed, although rain fell during the greater part of last night, while encamped at Chieh ma ho. Now the sun is shining and the air is cool and all is pleasant. I shall have dinner tonight with the lone white man Mr. Wilson, a kindly soul of mature age, having spent 30 years of the Kachin hills.

I nearly sent you a wire saying "arrived in Sadon well and happy." but I reflected, as my limited number of rupees which I will need for postage and for expenses while in Burmese territory did not allow me to do this.

I will now close with the kindest greetings from this far away and lowly spot on the top of a hill and with the hope that all is well with you and your family.

As always, faithfully yours,
(Sgd) J. F. Rock.

Yün lung chou, March 23, 1923.

My dear Dr. Fairchild:

Just to let you know that I am among the living and well. I finally reached Yün lung chou (Chinese characters) - the Dragon Cloud city situated on Hpi Kiang river. The trip to this place was a revelation to me. I went by an hitherto untrodden path, and path well it may be called, for we had great difficulty in getting our mules and loads across, and many times the loads had to be carried by men over dangerous places. I think that no one living can imagine the grandeur of the scenery and terrible-ness of the road, unless he has actually seen and experienced it. On the 19th of March I crossed from the Salween watershed to that of the Mekong over mountains, the grandeur of which words cannot picture. The trail crossed the Mekong watershed at 11,800 ft. over snow and through Abies forest with bamboo cane-brake. I got some beautiful photos, showing these mighty monarchs of the forest and the depths of the Mekong Valley. The trail leading down into the very canyon of the Mekong is like a spiral stairway, - such curves and steepness that at the angle the levels of the road differ 15 ft. You can imagine what turns, and down you look 7000 ft. It takes steady nerves and good hobnailed shoes to stick to that trail. I wish you could have seen the Rhododendrons, beautiful, gorgeous, all colors of the rainbow, many not in flower, as it is still early for them at such heights. Now, thanks to the gods, we have crossed all the mighty rivers which flow in tremendous chasms close together. The depths of the chasms increase farther north as the mountains increase in height. We crossed the Salween at Haush shan ting (Chinese characters) - ("Snow-mountain peak") at 11,000 ft., descended over precipitous spurs and ridges down to 2300 ft. elevation and stopped at a place called Kan ting gai. The tropical heat was intense, and, since I have been living at such high altitudes, I felt it very much indeed. There is no bridge over the Salween, and we crossed, mule, loads, men, etc., in a ferry, taking 3 hours to do it. Then came an ascent the steepness of which beggars description, - limestone bluffs with loose boulders, with burning grass everywhere which made the heat still more intense. These fires are started by hill tribes, ^{such} as Lolos, Minchias and Miao who the Chinese have driven into the hills ^{the} where they eke out a precarious existence. I have found the people on this trip much more civil, indeed, quite friendly. I only wish you could have had a glimpse of us all as we entered the hamlet of Wa man gai (Chinese characters), at the foot of some mighty limestone crags in a narrow canyon. It happened to be market day, and there were about 300 extra people in the place, mostly tribes people from the hills, in various costumes. As we approached, we were soon surrounded by a mob and progress was almost impossible. It was, however, a good-natured mob which had never seen a foreigner. We went to a small temple of which

this village boasts, followed by the mob. There was not a soul on the market and the open space in front of the temple was one seething mass of humanity: head on head they stood and from the temple steps I took two pictures of them. The worst was that they remained. The temple was one narrow, long dark room with a row of fierce looking gods on an earthen brick shelf; the front was one row of wooden doors, all latticed. Through every hole of the lattice work there peeped a face, and they strained their eyes and necks to get a glimpse of me. I felt like an animal in a zoo. There was no place to hide, and so I escaped and wandered about among the groves on the neighboring hillsides, until such time as I thought that at least the visiting crowd had gone home to their mountain fastnesses. When I returned I found the two village headmen had brought presents of red hill rice, a ham, and a smoked front leg of a pig. I returned the compliment with two tins of condensed milk. I suppose they liked the tin can better than the milk.

We were off at day break and spent the next night at a place called Tsao Chiang, elev.¹⁰⁰ 8000 ft. In front of us was the mighty Mekong range, snow covered in its upper slopes. As already stated we crossed it at 11,800 ft. elevation, wading through deep snow and through graceful, slender bamboo forest, with Rhododendrons and mighty Abies trees. Below the Abies belt was the most glorious Tsuga forest I have ever seen in all my life, - snow in patches everywhere. The somberness of the forest was somewhat brightened by beautiful Rhododendrons. A thousand feet below the summit crest there we found a tiny temple amidst a huge grove of these mighty Tsuga trees 4 ft. in diameter. Here I stopped for lunch; the air was most invigorating, and the scenery indescribably beautiful, - a place for gods to dwell in. I went to a quiet spot in the forest (for our caravan had arrived and was - as usual - noisy) and there I gorged myself on this wonderful scenery, - deep, deep down below the Mekong, a narrow brown band, above me the snow-covered crest of the Mekong prison range, its sides extending ⁱⁿ precipitous buttresses to the depths below, tree on tree, like the masts of ships in a crowded harbor. - The mighty snow-capped peaks in the distant north glittering in the sunlight, and there I thanked the gods for being alive, well and able to enjoy the glories of nature.

Tomorrow we are off for Chien Chuan (Chinese characters), a six days' journey, and thence it will only take two days to Likiang to my base camp. From here on it is unsurveyed territory, and the map is a big blank. More revelations to come. On this trip so far I have already collected over one hundred birds representing about 90 species. They have all been well prepared and packed in cotton. One can shoot, of course, many more, but it takes time to prepare them, and after such arduous journeys one is tired at night. We have often worked till midnight skinning and were up again at 5 a.m. and on our way. Stopping is expensive, owing to our large caravan: 23 mules, you will say, but what do you carry? Well, a lot, for up there one can not obtain anything. Provisions, kerosene, equipment, one load of

cotton (ginned) (for birds), clothing, tents, provisions and bedding for 10 men, cooking outfit, paper, blotters, books, one trunk full of medicines, and many other essential things.] Now I will close with the hope of being able to write to you soon from Likiang, telling you of our safe arrival.

Please give my very best regards to Mrs. Fairchild and dear Nancy Bell. Tell Mr. Grosvenor I will do my best in pictures and I think the next lot of negatives I will be able to send will gladden his heart. We have already many small mammals and over 100 birds. Will promise at least 2000 birds for this year, many seeds and plants.

With sincere Olahs for yourself, as ever,]
Yours,

(Sgd) J. F. Rock.

Peshwe ho, Snow range,
Camp 11,000 ft. April 25, 1923.

My dear Dr. Fairchild:

As there is still some daylight, although the sun has set over the mighty snow peaks, I cannot help writing to you, for my heart is full of the glory of this place. Two weeks ago it was the scene of murder and bloodshed, but today peace reigns supreme. The mighty peaks over 20,000 feet high, only about 2 miles or less from my camp as the crow flies, stand out in majestic grandeur against a pink evening sky. My camp is situated on a little alpine meadow surrounded by Abies and Larix forest, with occasional pines and huge old oaks. I wish you could be here and behold this magnificent scenery. There are only a few Primulas out and one Rhododendron, but it all breathes the air of spring; the birches and Tibetan poplars are in their spring foliage, and so are the larch trees. The birds are singing their evening prayer, and all is so peaceful that one can hardly believe that only a short time ago hatred and vengeance was let loose to murder and slaughter. Here the Chinese soldiers and Tibetan bandits met, and much blood was shed. We came upon the remnants of the slaughtered - how gruesome, but here I am a bit away from it; about 200 ft. below me flows the Peshwe ho, glacier-fed. Like a mighty fan this huge glacier spreads out over the black limestone rocks, dropping huge boulders of ice over a 6000 ft. precipice into the depths below. It is all so weird and yet so beautiful. I have eight men with me, 7 Moso, my Tibetan cook and my Chinese boy, a faithful fellow, the only kind who talks enough English to carry on a conversation. But we are all happy. Tomorrow we are going to He shwe ho, crossing that stream and ascending the mighty ridge which leads to the summit of Djinaloko, the second highest peak of this range. We shall camp tomorrow at about 14,000 ft. and then shall ascend the mighty peak. I hope to get some fine photos. The weather was quite clear today, and I took some grand photos. One shows my little tent against the snow peaks, the little tent Mr. Mahoney purchased for me in Washington. What a distance. It is getting colder every minute as dusk sets in and my fingers are getting cold so will stop for now. Will continue tomorrow evening.

April 27th,
Slopes of Mt. Djinaloko, elev. 12,000 ft.
Camp on alpine meadow.

Yesterday we had an exciting time. On awakening early in the morning we found that while we were asleep (although two men were supposed to watch) our camp was robbed. They took my two horses, the horse-beans, my men's rice, a large bag, one ham and all the cooking pots. We immediately gave chase. I went down to the He shwe river, where there are a number of huts and various tribes people. I searched every place but no sign of our things and nobody had seen anybody pass by Heschwe. The day before we met several Lolc tribes people, disreputable looking creatures, sitting under some larch trees. We asked them where they

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were going and they said to Likiang. It turned out that they were the culprits and one Tibetan. On returning to camp my remaining men found one fellow, a Lolo, of the bunch we met the day before, lying behind a log on the stolen ham. He immediately skipped and they recovered the ham and in his basket he had the cooking pots. He also had a black sheep with him which he evidently had stolen elsewhere. I just came upon the scene as they were shouting. I chased after him firing several shots from my colt automatic, but there were too many trees and underbrush. We chased them for hours in heavy rain but without being able to catch them. We found our horses which the others had driven ahead. They evidently abandoned them when they heard the heavy shots being fired, and the horses ran away from them. I sent a runner to Likiang as soon as I found out about the theft and asked for ten soldiers to come to catch the thieves. We recovered everything but 5 dollars worth of rice and as one of course cannot buy anything out here it being absolute wilderness, I had to send into Nguluko 3 men for rice or else we could not continue our journey. Early this morning after a quiet night we broke camp. The temperature was 38° and the wind blew cold from the glacier. It had snowed during the night and my tent was frozen stiff. We are now camping at 12,000 ft. which place I found quite convenient. There are huge Abies and Larix trees and a small brook with clear water. Back of my tent Mt. Djinaloko rears its mighty head into the clouds; northward the Yangtze flows in a deep gorge. I went up a higher ridge and photographed the river flowing in its deep rock bed. Tomorrow I shall attempt the ascent of Djinaloko; we have about 7-8000 ft. yet to climb. The charts are a bit vague as to the altitude. The snow is very down right near our camp. A big glacier comes down between two ridges which lead up to the peak. The Yangtze cut through this range and flows on the other side 14,000 ft. below. From my camp I can see Ndaku on the Yangtze where the Tibetan-Chinese massacre took place about 14 days ago. We met one lone soldier returning who said that there were now no more Tibetans on this side of the Yangtze.

We passed several peculiar looking people today. Some of them I photographed. - Two men from the Szuchuan border. They belonged to the Mashi tribe. They had the most queer looking guns. Two other fellows in rags passed by our camp dressed in old rice bags, filthy beyond description. They still wore queues and said they were natives of Kweichow, a neighboring province and were in search of work. I took their picture and gave them 20 cents and told them at the same time if there was any one approaching this camp at night he will be shot and at the same time I fired two shots from my colt and let them see that we did have shooting irons. One can never tell. They kow-towed and disappeared over the hillside. I hope we shall have a peaceful night and no more trouble. There is one good thing. It is moonlight and my tent is quite light, and I can see at once any one approaching the camp.

Well next time more.

April 28, 1923.

Bad weather prevented our ascending Djinaloko. The clouds

were low and a blizzard was raging on the mountain. It was bitterly cold, and as my object is to get fine views from the slopes and the top, I did not find it advisable to attempt climbing the mountain, especially in a gale and snowstorm at such altitudes. The whole ridge above us was crowned by columns of snow which the wind whirled into the air. There were hundreds of them and resembled smoke columns. As it looked clearer down in the deep valley where the Yangtze flows, I decided to descend 4000 ft. to near the Yangtze where it issues from that mighty gorge which it cut itself between Djinaloko and Hoba shan. It flows in a narrow rocky bed some 100 feet below the Ndzaku meadow at the foot of the deep gorge. It flows northward to Fungkou and Yunnging and returns south again to Tsilikiang, 1 1/3 days from Likiang, where an iron chain bridge spans it on the road to Yung pei and Szuchuan. I took several photos of the Yangtze and the mountain range it issues from, also of some 80-90 ft. tall *Picea delavayi* trees surrounding an Alpine meadow on which Tibetans grazed their Yaks. The sky is black and a fierce wind is blowing. Once my tent came down. I was glad it did not happen in the rain at night. It is bitterly cold. The contrast between this place and the Yangtze is indeed great - down below almost tropical heat, though I suppose the thermometer was not more than 75°; here it is freezing and too cold to write. No thieves visited us last night.

April 29th.

Just returned death tired from a terrible climb up Mt. Djinaloko. The weather was brilliant, clear, and no wind, so I left camp early this morning with camera, etc., to ascend Mt. Djinaloko. Alas, we reached only 17,800 ft. There we were blocked by a wall of ice about a thousand feet high. It was of a deep sky-blue and folded in a most perfect fashion something like this over the whole wall which formed the last part of the mountain. I am glad I went, for never in all my life did I behold such scenery. We were on the main peak range, and to the west of us there was a mighty ravine formed by another tremendous ridge with the most phantastic peaks; enormous glaciers 3 in number emptied themselves into the ravine, which deep below formed a stream which flows into the Yangtze. We crossed some mighty dangerous places, crossing snow fields God knows of what depth; with out alpine sticks we could not reach bottom, but it was hard enough to support us. From our camp we passed through the most glorious Abies forest, every tree festooned with long Usnea lichens, the floor deep moss studded with the loveliest Primulas and other alpine flowers. The air was fragrant from the balsam-exuding Abies trees. With one word it was glorious.

Thence the real climb commenced through stunted Abies forest with scrub Rhododendron till we came out on to the steep limestone bluffs harboring in crevices spiny *Caragana* cushions and small leaved Rhododendron. All these bluffs are covered with loose limestone gravel as sharp as a razor edge; but we soon came on to extensive snow fields with their characteristic discs of snow of huge dimensions, caused by small lavines. Every few

minutes a terrible roar like the fiercest thunder announced the descent of lavines and blocks of ice from the hanging glaciers. I took many photos which ought to gladden Dr. Grosvenor's heart, as they are the first ones of this particular mountain. Way down deep below flowed the Yangtze, here known as Kin sha kiang (Chinese characters) gold sand river. Nobody ever heard the name of Yangtze in this part of the world. The Tibetans call it "Yibu", at least those of this region.

It certainly was a perfect day. I am only sorry we could not make the top, but that is humanly impossible, at least for myself, as I have no such outfit for mountain climbing of that sort, and I had not sufficient men with me to risk it. I feared that it may cloud over any minute and that snow would fall. That would have been a very serious affair, as our trail marks, I mean foot prints, would not have been visible, and to be lost on such a mountain with enormous precipices, continuous landslides, etc., it would certainly have been a serious matter. However, everything went well. I have again been lucky, and I can hardly wait till I get back to Nguluko to develop the pictures. I am really tired out, so will close; tomorrow we are off for Lapo on the other bend of the Yangtze.

May 1st, 1923. 289
In the Nashi village of Bayia.

Yesterday I felt desperately lonely. We left our camp on the slopes of Mt. Djinaloko in a drizzling rain, - a dark grey sky without a breath of air stirring. We entered deep dense forest with Picea and Abies trees over one hundred feet in height festooned with meter-long Umbra lichens. Not a sound of any living creature, absolute quiet. This Abies forest was wonderful indeed but the drizzling rain and the long lichens made the whole scenery appear very sad and somber. All alone in this wilderness I wandered with a few Moso men. All at once we stumbled onto an unwelcome sight in this quiet forest. In the middle of the trail was a new empty coffin. Here the Tibetans had a fight with Chinese soldiers and eight were killed of the latter in this place. After the Tibetans had been driven off the Chinese brought 8 coffins for the dead soldiers but could find only seven bodies, so left the eighth coffin behind on the road. On a huge Picea tree nearby they carved the names of the fallen Chinese. It made me feel very queer and so lonely, as I must confess I have not felt in a very, very long time. On we went through dense forest, the Abies trees giving place to Tsuga trees, mighty monarchs of the forest quite as tall as the former. Thence we entered somber pine forest, tall straight trees, dense stands for miles, - no undergrowth save an occasional Quercus delavayi, - not a sound, not a bird, not a breath of air, only the straight silent pine trees, their tops enshrouded in mist. It was a most extraordinary country, one mass of hills from 50 to 300 feet in height, one undulating, most confusing terrain. Through this we marched, a silent column. Even the Moso boys felt depressed; at about 3 p.m. we spied smoke and presently we came to a settlement of Lolotribes people, half naked, the only covering being a heavy felt cloak and filth. Here

we lunched near a little brook, all the Lolos coming to watch us. I managed to get some photos of them but the camera will not show their dreadfully filthy condition. They fell these huge pine trees by the hundreds and simply burn them and use the ashes as manure. They have a very queer method of preparing their fields. They plough the soil for about two feet, then pile the surface soil into oblong mounds over sticks of pine wood about 4-5 ft. long, the fields resembling a huge graveyard; they then set fire to the wood and burn the soil.

After a short stay we went our dreary way through this somber forest, limestone mound after limestone mound with deep sink holes between them such as I saw in Florida, exact duplicates. We did not reach our destination (this village) till 7 p.m. and I was indeed glad to get out of that mysterious forest.

Yesterday being the 15th of the third Chinese moon (full moon) they had a great celebration but owing to the Tibetan bandits being about only a few people came from the neighboring villages. I put up in a loft of a Nashi house, with cattle and pigs below me. In fact, the villagers had just returned to their village today. They drove their cattle, etc., into the forest and hid most of their belongings in the woods on the approach of the Tibetan who passed through here. Hence we could buy nothing.

Today, May 1st, I climbed Mt. Mo-tzu shan, opposite the great gorge through which the Yangtze flows, the snow ranges standing out perfectly clear and sharp after yesterday's rain. While I was absent today from this village (where I gave my caravan a rest) a runner came in from Foung kou on the Yangtze two days north of here bringing a letter to the headman of this village, stating that 300 Tibetans had crossed the Yangtze at Foungkou and were marching down to Lappo, the very place I was going to tomorrow. The headman sent men after me to tell me but they did not find me, but, of course, was informed at once on my return to the village. There remains now nothing to do but to make a hasty retreat to Likiang which is about 3 days south of here. These Tibetans carry nothing with them but loot on the way, and they make long stages. I hope to reach my village safely, but I am a bit anxious. If they come also via Hdagu then they will be only a few hours from here.

Such is life. Today I long for the comfort of a civilized country where one can go to bed without having revolver near one and where one does not have to watch every sound. However, it also has its fascinating side, as for example while I write I can look out upon a moonlit scenery; the like cannot be duplicated easily anywhere in the world, unless it is in the Himalayas. I envy you tonight your secure home, your family, and your peaceful rest. Here I am alone with Moses in absolute wilderness where there exists no law. Perhaps I ought to take the latter clause back, for yesterday I met in this village a group of Nashi men from a neighboring village, dragging behind or rather between them six Hsifaus men over 6 ft. tall, with iron chains around their necks, with huge Chinese padlocks on them and chains and padlocks around their hands. On inquiry I was told that they murdered some Nashi travelers between this village and the next, some 15 miles from here. Hsifaus are almost like Tibetans. They dress like Tibetans but have a different language and occur between here

and Muli in southwest Szechuan. Their fate is sealed. They will be taken to Likiang and shot.

Now I will close. I hope to be able to announce my safe arrival in Nguluko in a few days.

Yours faithfully,

(Sgd) J. F. Rook.

Copy

COPY

Gasenko Duzain, elev. 14,500 ft.
Camp on an alpine meadow - snow
range.

June 30th, 1933.

My dear Dr. Fairchild:

Excuse the paper and pencil, - circumstances are such which do not permit the use of official paper and ink. I am writing this letter during a terrific thunderstorm. It is now rolling over the snow peaks to the left of my tent which is situated in one of the loveliest alpine meadows. As I look out from my tent I behold rolling meadowland covered with a glorious alpine flora, carpets of white formed by Anemone demissa, interspersed with brilliant Incarvilleas, blue Meconopsis, bluish purple Anemones, huge flowered Cypripedium tibeticum, purple ground orchids, brilliant yellow Stellaria, and a large flowered Caltha, pink Polygonums, etc. The meadows are lined with Abies forest of dark deep green, clouds are hanging low, lightning flashes, and the thunder rolls furiously, being re-echoed by the huge limestone crags and peaks immediately to the left of me. Tibetan Yaks are grazing, their long black hair hanging like a curtain to the very ground. One thing more, the rain has brought out the leeches, notwithstanding the high elevation. I had intended climbing some of the peaks, but black clouds gave me fair warning, and I returned just in time ere the storm broke. We collected some lovely plants this morning. There are many beautiful Primulas, yellow, deep orange, red, deep purple and blue. I found a lovely Rheum, probably Rheum alexandri, with large cream-colored bracts arranged in lovely pyramidal spikes. The blue poppies are really gorgeous and stand out handsomely among the other alpine plants: of shrubs there is the deep red Paeonia delavayi and a deliciously fragrant pink-flowered Syringa, several Sorbi, honeysuckles, and blue-flowered Rhododendrons. I took several photos which would illustrate this letter splendidly, from the snow peaks and the black, hovering clouds, to the camp in its bed of many-colored flowers mentioned above. I hope the weather will clear, and I shall attempt to climb as high as physical conditions will permit. My health is of the best, and altitude does not bother me the least. I live simply yet well, for example, plenty of Yak milk. Below my camp Tibetans have a miserable shanty. There they milk and make Yak butter. Yesterday I bought some from them, but you should see that butter. It is made into large (3lb) cakes with the dirtiest hands imaginable and is interlaced with a network of black Yak hair. So we melted it after several washings and strained it through cheese cloth and now we are using it for cooking. I eat one real meal a day, which I find quite sufficient. At night one cup of cocoa and to bed at 8 p.m., up at 5 a.m. Two days ago I was down to about 8000 feet elevation, and I must say I felt the low altitude and was longing to get again into the uplands where the air is fresh from the snows and pure. I went down into a gorge which encloses

glacier fed rivers and there found Miaotze tribes which settled there 57 years ago, coming from Kweichou. The same tribe I found upon Doi Chang, the elephant mountain, in northern Siam, but these are Pe Miao (Chinese character), that is, white Miao, so-called on account of their supposed white dress (short pleated skirts). I took several photos of them and then came up here. You never saw such wonderful pheasants as live up here in these alpine regions. I am sure some of them must be new, one with a long skin of brilliant turquoise blue with oker-yellow patches, hanging for about one foot from his throat, with brilliant plumage; others with such long tails, white and black interspersed with brilliant orange feathers, that the boxes for them will be as long as a normal sized coffin. However am I going to get all this material out of here, with such narrow miserable trails and such enormous mountains and such long distances to civilization? However, I will get them home, that is, to Washington, somehow. We have now over 700 birds and many plants and photos, as yet no seeds; the time is not yet ripe. You may ask what the Miaos are cultivating - corn and buckwheat and a few beans; higher up, wheat, oats and barley, Irish potatoes and again corn, with here and there a field of poppy for opium.

The thunder has ceased or can only faintly be heard, the peaks are clear snow white against a dark gray sky, everything is peaceful, it has stopped raining, and I shall go out and see if I cannot get a pheasant or two.

I wish you were here if only for a couple of days to enjoy this glorious scenery, and we could take walks over these wonderful meadows among the blue poppies and their alpine associates.

As always,

Faithfully yours,

(Sgd) Joseph F. Rock.

C O P Y

Custom House,
Tengyueh, 11 August, 1933.

Dear Rock:

On the 2nd instant I wired you that a case of photographic material had arrived for you and asked whether I was to forward it on to Likiang. But so far I have received no reply. The contents of the case will require to be repacked into two cases, for the case is much too heavy for a mule to carry. It is a pity, if you want the material at Likiang, that you left no instructions in this connection, for I had a fine opportunity today to send the stuff off with the Consul, who is proceeding to Talifu. However, it may well be that you do not require the material at Likiang until the dry season.

The Consul has been instructed by his Minister to proceed to Talifu for the purpose of effecting the release of Mr. Weatherbe, who we hear has been removed to the mountains lying between Teng chuan and Pin chuan. I am much afraid he must be having a very thin time of it. He has my entire sympathy. I sincerely trust that the Consul will succeed in releasing him.

The ground orchids you so kindly sent are all dead. The roots never even sprouted. I feel very sick about it. If the Consul goes up to Likiang, as he says, you might hand a few to his cook, who is my No. 2 cook, and he will bring them down to me in a live condition - thanks in anticipation.

Gregory of the B. A. T. left here yesterday for home.

Trust that you are keeping well, and that the Tibetans are not making themselves a nuisance to you. 200 soldiers left here yesterday for the protection of Yung chang, which is threatened by brigands. These pests looted Shayang, Yang pi and Chian Hou ching last week.

Kindest regards, Yrs.,

(Sgd) I. Houston

Mr. Russell

C O P Y

Enclosure: one letter from Commissioner Houston of Tengyueh.

Note: His telegram was never received. Rock.

Likiangfu, Yunnan, China,
August 22d, 1933.

My dear Dr. Fairchild:

Two or three days ago I sent you a cable through the American Consul at Rangoon, stating: "Leaving shortly for Eastern Tibet. Rock." I am getting all my caravan paraphernalia ready for the long trip; it means a lot of thinking and arranging, for one cannot go back or send for anything after one has started. The brigands have now moved southward and are nearer Tali, although one large band is at Sung kwe two days from here. As far as I know the air towards the north is clear. My men have just returned from the Salween Irrawady divide with a large collection of plants, etc., and after giving them a few days rest we will then start all together north and then west. I hope that things will go well, for, believe me, it is not an easy undertaking in this wild country to be for months cut off from the outside world where not even a letter reaches one. There was a telegram to Atuntze but it was totally destroyed by the Tibetans this spring when they came down en masse to attack Likiang. However, even last year it would have been impossible to send a wire even to Weishi, for the wires were down for several miles and of course the Chinese had no idea of repairing it. Poor Mr. Weatherbe is still in the clutches of the brigands whose demands are increasing after every negotiation. Word has come that he is very ill with malaria and that it is impossible for him to eat their food; to be dragged about from one mountain to the other in such a condition is no picnic. The Leuching prisoners evidently were in more civilized hands than poor Mr. Weatherbe. It is now six weeks and no hope in sight for his release. The British Consul is now in Tali, having been ordered to go there by the British Minister in Peking, evidently to bring pressure to bear on the Chinese officials to accept the brigands' terms.

Well, the box of films and papers has arrived in Rangoon and was promptly dispatched by Thos. Cook & Son to Bhamo to my agent there. Now one word allow me to say. Kindly read my wire to you on January 31st, of this year, and you will find the following passage: "Repeat film and developer shipment in sixty pound boxes tin lined." Now what has been done? The box weighs 165 lbs. All was packed into one box. It is of course impossible for a mule to carry one

expedition a success: otherwise one is hopelessly handicapped. I am really feeling more at ease now, as I do not expect anything more from Washington in the line of materials and consequently there can be no more mistakes.

I had a harrowing experience today. A man rushed to me saying that a woman 50 years old had taken a large dose of opium and would I not come and save her life. Poor soul, she was almost in her death throes when I reached the place. She was unconscious. We made her vomit at once and she did throw up an astonishing amount of brown liquid, but all efforts failed. She had absorbed too much of the poison. I gave her strong coffee, brandy, and worked over her producing artificial respiration, and she did revive but collapsed completely a few minutes afterwards and died. Poor soul, - the lot of a woman in this country is a hard one. Her husband, a man of sixty last year bought a new wife, a girl of 18 years, who lived in the house and with him she had a child. The poor old wife had a lot to put up with. She worked like a slave and then was put aside at her age. She has several daughters and a son who was beaten last year for ruining a girl. Now the young wife and the poor child is getting it from the rest of the family and yet the young wife is to be pitied for she was bought like a slave and has to stay. Such conditions in this year of our Lord, 1923. Suicide by opium is very common here. When I told them that she was dead you should have seen the scene. Her daughters screamed and whipped themselves in frenzy, the old man, her husband, was smoking a pipe, and then he started but one could see that he did not care a rap. He danced about like mad and hit his head on the stones of his courtyard, but it was all outward show. One could really see that. He is a hard sinner. The poor little child, innocent, was to be thrown out onto the street at once by the rest of the females, as if it were to be blamed. It is a girl and so of course nobody cares. To see such scenes makes one think indeed what life is all about after all. Family life held up so wonderfully by writers of things Chinese is certainly not as it is depicted. I have seen hundreds of families Chinese in this province, and I can only have pity for the poor women who are mere slaves and treated less well than the pigs. They are put aside at a certain age and new wives are bought without their consent by old men. The old wife has to toil on and bring money to supply opium for the degraded husband. Chinese morality is not what it is depicted. I was in a place called Tasa and there is not a house where some woman has not committed suicide by the opium route, either due to wretched mothers-in-law or opium sodden husbands. I am afraid I am going to take with me from Yunnan a sad imprint of the lives of these people. "Selfishness is their creed." Here is an example: A place was looted by brigands here not far away from Likiang. The bandits gathered all the money and ornaments of value together and found the loot too large and consequently could not carry it all off, leaving a lot behind in the village

box weighing 165 pounds. My agent sent the box by coolly carrier to Tengyueh which costs 48 rupees, while if it had been packed as requested in my wire the cost would have been 12 rupees. I enclose a letter from the Customs Commissioners of Tengyueh, and his letter is self-explanatory. If he were not so kind as to repack it, it would lay forever in Tengyueh. What is the use of my spending money for expensive wires when my requests are completely ignored. I would suggest for the future that before any shipments are made to me at my request, my letters or wire be carefully re-read before despatching material. They are apparently filed, the contents forgotten and the order sent out mechanically as if it were for some town in America. Allow me to say that it is difficult enough to get anything out here, for the risks are very great, even when all possible attention is given, but when in addition the whole thing starts handicapped when there is no reason whatever for it starting thus, then of course it is impossible to carry on work properly and in addition ~~the~~ one loses the enthusiasm, as one comes to think, well the people at home apparently don't care or else they would pay more attention to one's requests and would be as helpful as they possibly can be to ease one's lot out in such impossible places where one has so many serious things to contend with. If ever I go out again we must come to some understanding regarding such matters as paying attention to and carrying out the instructions of the man in the field who knows best, otherwise it will be impossible to do work satisfactorily and with enthusiasm. You will certainly have to agree with me that I am right. The whole thing from the very beginning has been one grand muddle this year. Thanks to your prompt action on my wire in which I stated that the expedition will be a complete failure if films are not sent by letter post, I am now in receipt of the 50 dozen films and developess by registered letter post and I can now start on my journey north. I hope that on my return from Tibet the other films will be here. The road from here to Tali and thence to Tengyueh is very dangerous at present and in fact always has been. Mr. Houston, the Commissioner, writes that Yangpi (one day west of Tali) and Shayang two days west of Yangpi and Chian Ho ching two days southwest of here have been looted and robbed and that the brigands are threatening Young chang, a large town for days east of Tengyueh on the main Tali road. Two hundred soldiers have been dispatched to defend the town. So you see it is very risky for caravans to venture out on these highways, for they may be attacked and robbed any minute.

Do not believe that I am painting things too black. This country is in an indescribable condition. So much for that. Please do understand me and do not think I am always doing nothing but criticising. If you think the whole matter over you will realize that it is of the utmost importance to pay attention to the requests of the man in the field if satisfactory work from him is to be expected. I need all the moral and physical support you can possibly give me to make such an

square. Now the poorer village people themselves fell over the loot and robbed of what was left, instead of returning it to their rightful owners. It is a sad condition and no prospects for better days in sight, for selfishness is the main characteristic of the Chinese. Kindness is unknown.

Your letter of June 25th which just arrived an hour ago and Judd's letter and report which you kindly enclosed has been an inspiration. I am glad that some good is coming out of my trip to the wilds of the Chindwin. I hope sincerely that last year's work will be similarly fruitful.

I enclose with the kindest regards and best wishes and the hope that next year we shall see each other face to face and talk things over perhaps en route to Hawaii where I want you to be my guest.

As ever,

Sincerely yours,

(Sgd) J. F. Rock.

Hikiangfu, Aug. 29, 1933.

My dear Dr. Fairchild:

Your long epistle of June 30th reached me today on the eve of my departure for the unknown. Not perhaps so much the unknown country but the unknown of adventures and experiences which are in store for me or any one undertaking such a journey. I must say I like this latter of yours, although you seem to make light of all my difficulties out here. Yet, I certainly appreciate your explanation and your position which is indeed a trying one. I would be blind if I had not seen as much in the first five minutes of our meeting in 1921. Perhaps I have been a bit too critical and angry, but please remember the trying circumstances I did pass through, this continuous tension that I lived in, never knowing if during the night robbers would not sweep down to loot and murder. I quite agree with you that sitting in your office with the ever-ringing telephone and people to see who perhaps only waste one's time in trying, and it is difficult to think of the needs, etc of a far-away explorer; and yet the explorers seem to my mind one of the important assets of your office, who are entrusted with important missions on the success or failure of which much depends, and therefore to my mind they should be kept in mind. This, please do understand me, is not to say that you have been guilty of such a breach, and indeed, for your letters have always been a great encouragement to me, save in a few instances when you delight in putting the damper on systematic botany which to my mind is the basis of all botanical work. We would be perfectly ignorant of the flora of the world if we only had explorers that pick up seeds without the proper material necessary for the identification of them. If we only picked up seeds, there would be few floras such as the *Flora Brasiliensis*, etc. You know as well as anybody the truth of this, but I think in your enthusiasm for living plants which I share with you to the limit you are so full of the spirit of the living plant and its possibilities that for the moment you have no use for dead stuff, as you call it. I look upon a collection of dead stuff as a reference library which harbors no mistakes but is ever ready to give information to him who is able to read and see properly. I will always believe in herbar material, not as so much hay but useful ever ready information.

I am glad you like the photographs which are but poor representations of the real thing. I wish you could see these beautiful mountains which are indeed a compensation for all the other troubles which the privilege of beholding them entails. I must frankly confess that I shall be dreadfully homesick for this wonderful spot, as homesick as I was last year when en route to Rhano from Tengyueh. I shall never be able to dwell in a noisy city and yet man becomes easily accustomed to new surroundings.

But I for all prefer the great out-of-doors and "explorer" shall remain my metier till the end as long as there is breath of life within me. My photographic results are now in keeping with the desires of the National Geographic, and humanity figures much on the films I shall bring to Washington. I think Dr. Grosvener will be pleased with the collection. I should be deeply disappointed if he were not, for after all one house or village in China is like any other, and a meadow and woodland is much the same in America as here. There are, of course, no such wonderful ranges or gorges as there are to be seen in this marvelous northwest corner of Yunnan. Abies forrestii is a lovely tree indeed, and I shall try my best to get seeds this year. I think I told you the reason why I did not get any last year. The seeds ripen in December and as you know I had to be chestnut hunting in the Tengyueh area by September, and Abies forrestii is confined to this region. It loves moist situations and delights in rocky (limestone) slopes. I have some lovely pictures of Abies forest covered with May snow. They are never found lower than 10,000 ft. and I suppose Mt. Rainier would be the best place, or the region of Seattle in general. It is decidedly different from Abies delavayi, a much smaller tree confined to the Tali range. There are only two pines in Yunnan or perhaps three, for Pinus khasia is found in the south of Yunnan near Langling. Pinus sinensis is a very variable tree and is usually crooked, but there are regions where it forms pure stands of perfectly straight trees 50-60 ft. or perhaps even more in height. Pinus armandi is the other, Pinus parviflora does not exist in Yunnan. The former, P. armandi, is the taller of the two, that is, of those occurring in Yunnan, and trees 80-90-100 ft. in height can be seen but unfortunately only around temples, as the Chinese often cut them down even when only 10-15 ft. in height. I have never seen it 300 ft. high, and I am almost certain that no such height is attained by that tree. The cones are exceedingly large, and I shall collect some real mature ones, although 12 inch cones do not occur. The tallest conifer met by me in this region is Taxus yunnanensis and Picea likiangensis, both well over 100 ft. high. I have photographs to prove this. Pinus armandi occurs where Pinus sinensis leaves off, the former desiring more moisture than the latter which usually grows in dry gorges and on dry grassy slopes, but of course most Yunnan experiences the steady summer monsoon rains. I think in those days Forrest did not know much or perhaps exaggerated one of the two. The Northwest to my mind will be the place for all the conifers of this region, although I must confess I do not know the climatic condition, etc., of the Appalachian mountain area. I will do my best as regards the chestnuts and I can assure you that I will not neglect them. I will try various methods but it will cost at least 500-800 dollars postage to get them to you. Would not your office wish to contribute some to this outlay? My expenditures up to June 11th, 1933, from February 1st this year, are Dollars Mex. 5059.63, Rupees 1928/11/6. This does not of course include my salary and per diem allowance, so you can figure out the monthly expenditure. The freight this year will be heavy, the postage the biggest item, for I hope to send you an unrivalled collection of seeds this

year of both chestnuts, conifers, and seeds of some 400 species of Rhododendrons, 30 Primulas, etc.

To my mind the Castanopsis from the Likiang range is the most promising. It grows north of here on the Yangtze as well as on the Salween ridge. Here it forms pure stands at 9000 ft. elevation. It loves well drained areas. Since the soil indicator has finally arrived, I will make a soil test and let you know all I can find out about this tree. I shall have some fine sets of photos, illustrating this species; the fact that it grows in pure stands here shows that it is able to compete with the oaks and other trees which grow elsewhere in similar situations. It will be impossible of course to get the chestnuts from the Tengyueh area as that would mean again giving up a northern trip and the photos desired by Mr. Grosvener.

Catalpa douglouxi would never do in Massachusetts, of that I am certain. Louisiana to my mind would be the likeliest place.

I will not bother you more in regard to all this. You probably wish to forget about these things on vacation, but at any rate this letter will not reach you ere the beginning of October.

I am exceedingly glad to know that the boxes of specimens have arrived in good condition. They indeed have made a long journey; if you could have seen them being dragged up and down over enormous mountain ranges, through deep gorges, jungles, etc., for 28 days, from Nguluko to Tengyueh, then the journey to Bhamo and finally on the Irrawadi, etc. Perhaps it will be best to wait with the distribution of the specimens until my arrival, as slips are easily made. So please keep them intact. The collection made this year are infinitely larger and will comprise about 40 boxes, large ones for birds, etc. We have explored the upper Mekong, Salween, Yangtze, and the Salween-Irrawady divide, and the yield has been tremendous; from that region along we have secured 806 numbers of Rhododendrons representing at least 850 species and varieties. I hope to secure few Dr. Coville the finest Rhododendron collection ever brought to America. I will have seed (all going well) of about 400 species of the most lovely plants, so please get ready for them and clear your propagating houses.

I certainly think that it ought to be understood that in this part of the world signed subvouchers are unobtainable, for no one can either read or write. What if I take a native Tomba or witch priest along and have him sign all my vouchers in the peculiar hieroglyphics as seen in the Mose books I sent? I am glad to know that steps had been taken regarding export permits, etc., although I had not been informed of the fact by Peking, hence my wire.

Many thanks for the Times, which reaches me of course very irregularly. They are sent by mule back and await a large enough consignment. This means that I get six or seven papers at once or none for a month and a half. All the other things you mentioned arrived, and there is nothing more to worry I have made careful note of all your "don'ts" and shall try my best to make a success of this year's work.

One more word. Mr. Weatherbe escaped from the brigands and is now in Talifu. All his belongings, collections, etc., are lost. Since he is not now with the brigands, the soldiers are closing in on them, and there is heavy fighting near here. I take this opportunity to slip out while they are engaged by the soldiers. Of petty brigands who go in fives and sixes I am not afraid. I have met them often but bands of 100-200 is another story.

Au revoir next May. Till then I remain,
As always faithfully yours,

(Sgd) J. F. Rock.

Kind greetings to Mrs. Fairchild, Nancy, Graham, Barbara and all the friends in the office. Special regards to Dr. Galloway.
J.F.Rock.

P.S. I have now collected up to today 10815 species of plants representing some 75,000 sheets, 1348 birds and a number of mammals. The later (mammal) collection will not be large as I have no traps and without them it is impossible to get small animals. Negatives about 450, this year, so far. The bulk is yet to come of all plants, birds, photos, seeds, etc.

Rock.

Sept. 10th, 1923.

My dear Dr. Fairchild:

I have again postponed my trip owing to the very bad weather here and also on account of the fact that the wild chestnuts ripened. We are in the midst of picking them, that is taking off the husk, and I took a photo this afternoon of the crowd of Nashi picking the seeds out of the burs. This is a small chestnut (fruit) but a large tree which reaches an age of several hundred years, for trees occur often six feet in diameter. It is most prolific fruiter, the seeds are small but edible, of course, not to be compared with the real chestnut. The wood is very hard and much desired for construction work. It will last a long time, especially under water, and is used for piles. Here are many lakes and ponds, and it is employed for posts in house construction. To my mind, it is one of the most desirable timber species I have yet come across. It is suited for various climatic conditions and is apparently not particular as to soil. It is fairly widely distributed in northwest and central Yunnan; in the latter region it is confined to the highest ridges, also on the Shweli Salween divide at the top of the range. Here around Likiang it is common in the Yangtze valley, as for example at Shiku at the great Yangtze bend, at Tung shan and Ngaza, all near the Yangtze. It is found on the slopes of a limestone range at 8500-9000 ft. north of Likiang and from this latter locality I secured two mule-loads; as the fruits are small, you can imagine how many thousands of seeds this will make. I am dispatching them several packages (registered letter post) at a time, as there is only one carrier and if I send all to the postoffice at a time it will take a long time ere the last package will have left Likiang. The seeds are packed in slightly dampened, powdered, sifted sphagnum moss. This is really better than charcoal. It is also much lighter and the cost will be less. I brought the sphagnum with me from Tengyueh where we collected it on the high mountains around there. In this region there is no such thing as sphagnum. There is plenty of other moss but no sphagnum.

I am sending you under separate cover photographs of the tree, trunk, etc., of this semi-deciduous Castanopsis. It is a perfectly healthy tree and a most prolific fruiter. There are many very large trees but they are so situated that it was impossible to photograph them. This species forms pure stands and large groves covering the hillsides of this limestone range. It needs apparently well drained soil. I tried to make a soil test, but every drop of water here is so alkaline that it turns a deep blue at once, while a soil test shows up neutral. The water is saturated with lime; even the rain water, if tested, turns blue. I may yet find water that will give a neutral test. I had to smile when I read the accompanying bulletin, when I came

to the place where it says: "When traveling one can always buy distilled water at a drug store." This reminds me of the "First Aid" you kindly bought for me when in Washington; the first and last phrase in that book is, "Call a doctor at once." Many times when I wanted to look up something that phrase stared into my eyes, till I got actually made and hid the book. I wish some one would write a "first aid" for a country where doctors are an unknown quantity.

This will be my last letter from this part of the world. As soon as these chestnuts are despatched, I shall move on, and I hope by that time the weather will be better. When I return to Likiang about Xmas or January, the seed packing of the hundreds of Rhododendrons, Primulas, etc., will commence. There is no danger they will keep. I shall have plenty of seeds of Abies forrestii, Picea delavayi, Picea likiangensis, Tsuga yunnanensis, a really superb tree, Pinus armandi, etc. I have already lots of seeds of Primula beesiana, Primula poissonii, Pr. secundiflora, a glorious species, also Pr. bulleyana, several Meconopsis, and later I shall have a fine seed collection of the most wonderful Delphiniums you ever laid eyes upon. I have photographed (close up) many of the striking plants, and you will be glad to see them, I am certain. The bird collection is growing from day to day, and I am the busiest individual with birds, plants, seeds, photographs, etc. There is little time for writing. When I come back here from East Tibet and all my seeds are despatched and there is nothing to collect owing to a heavy blanket of snow, I shall sit down in my little room by a charcoal brazier and write my story on the spot.

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Please tell Mr. Russell that I have received his letter but had not found time to answer it directly. I have, however, collected the desired "fireflies" and will send them to him shortly. I found only one species.

I would like to ask a question about certain Castanopsis I sent from Tengyueh, - my numbers 6714, 6715, 6683, 6682, 6683a, 6636, and especially 6716. This latter is a fine tree by far the tallest I have seen. It comes, however, from a warmer region from the Shwelli valley. Of this latter species I sent seven bags. Did it grow? None of the above numbers you mentioned nor any one else, also No. 6729. What has become of them all?

You say re-collect them. Do you know that they are a month's journey from here? It is out of the question. It is impossible for me to act like St. Francis of Assisi who could be in several places at the same time (if he ever was). I am going to do the best I can. The trouble is one cannot take photographs in Eastern Tibet when the weather is just right and the air is clear of brigands and collect chestnuts at the same time in the southern part of Yunnan, a month or more distant, which necessitates traversing country now swarming with brigands. I can see very well that it is utterly impossible for you people in Washington

to have the faintest idea as to conditions in this part of the world. You think of jumping on a train and there you are. Here it means endless discussion with mule caravans, the consideration as to what road would be comparatively safe, etc., and when one goes traveling here a suitcase ^{you'd} do; you have to take your household along. I don't ^{think} you ever traveled in a region like this by caravan under such difficult conditions. I can see this by your letters.

In conclusion, I wish you a very merry Xmas and a happy New Year. I shall be in the wilds of Southeastern Tibet alone but happy.


With kindest regards to yourself, Mrs. Fairchild, Nancy, Graham and all the friends in the office,

As ever yours,

(Sgd) J. F. Rock.

Wei Hsi, Oct. 10th, 1923.

My dear Dr. Fairchild:

As you can see by this letter I am no more in Likiang but on my way to Eastern Tibet, Atuntze, and Batang. We left Likiang on Oct. 2nd, having had to postpone and postpone our trip first on account of brigands and second on account of the torrential rains which have continued incessantly up to October 6th. I give you shortly the stages from Likiang: first we crossed the Lashipa plain west of Likiang to the village of Dokò, a Nashi hamlet where we slept in a temple full of odd gods which were harmless but also full of flesh which could not be called harmless, but as we were all tired we nevertheless slept well: the next day we climbed over a high mountain range over a 10,000 ft. pass down to the Yangtze river which we followed to the great bend at Shiku (Chinese characters) meaning "rock drum" owing to a peculiarly shaped rock-mountain immediately back of the town. The Yangtze comes down from the north in a more or less straight line but at Shiku it makes a complete turn at a sharp angle like this  and returns north again, breaking through the Likiang snow range and flowing through a gorge 13,000 ft. deep. In Shiku we stopped at a Lama rest house, I sleeping in a dirty chapel with gilded Buddhas. From Shiku we followed the Yangtze north for three days to Chütien where we left it branching off to the west following up a narrow valley along the banks of one of its tributaries to Lutien which is situated at 9,000 ft. elev. in a circular valley. From Lutien we climbed steadily to 11,000 ft. where a pass leads to the top of the Litiping, the Mekong-Yangtze watershed. The weather had cleared perfectly and we started from Lutien as the sun rose over the Yangtze range and gorge we had left the day before. It was cold and bracing, the birds were singing and it certainly promised to be a perfect day. We had as guides two Nashi tribesmen armed with crossbows and arrows. The latter they carried in a bag of bearskin. A glorious view awaited us on the summit of the Litiping, which is a grassy alpine plateau lined with dense forests of Abies, Picea and Betula trees, the latter reaching a height of 70 ft. or more with huge trunks clothed with a copper colored scaly bark which glistened in the sunshine. The meadow itself before us was a sea of blue Gentians. Way below us lay the small plain of Lutien, ahead of us this wonderful grass land of blue Gentians and Edelweiss with the loveliest forest of spruces bordering it. The outskirts of these spruce and fir forests were lined with maples, Sorbus and other foliage trees, all in their rich autumnal tints of brilliant red, ye flow and bronze. It made life very sweet indeed. I determined to camp up there and explore a bit, but fate decreed otherwise. We marched on in this glorious atmosphere and selected a place on the edge of the forests, somber and mysterious within all clothed in rich green moss, the ground one lovely carpet of green. We had hardly settled awaiting our caravan,

when a runner appeared with a letter (Chinese) from the official at Lutien, asking us to hurry on as quickly as possible and not linger on that lonely mountain range, for a band of over one hundred Lissu robbers had attacked and robbed a village called Ssu shu to on the western slopes of this range, and were now heading for the summit of this lovely range. So not to expose ourselves to the danger of being robbed or attacked by these savage hill people who are a dangerous enemy with their crossbows and poisoned arrows which they wield with great precision, we moved on, descending into the valley of the Chi yün ting (Chinese characters) river on the western banks of which Wei Hsi is situated. Wei Hsi consists of about 400 houses; the inhabitants are Chinese, while the people in the outlying villages are Nashi and the mountain tops are inhabited by the quarrelsome Lissu. We are stopping two days in Wei Hsi. Yesterday I developed the pictures taken en route of Shiku, the picturesque market there, the Yangtze gorges, the Litiping Yangtze-Mekong divide and those of Wei Hsi. Today we are packing seeds of a few plants we collected on the slopes of the Yangtze divide.

Among them are the following: A fine conifer with blue-green, large needles, with plumlike fleshy fruits and large stones. This tree has a perfectly smooth bark almost like the blue gum, Euc. globulus, but does not grow very large; as the wood is much sought by the natives, they cut them down at any age, and so I did not meet with any large trees, only bushes 15-20 ft. high, forming dense clumps.

There was also a large Torreya tree 80 ft. tall but now without fruit; the nuts are of the size of a large walnut. These trees were only observed on the mountain slopes above Lutien (elevation about 9,800 ft.).

At Lutien I saw an Eucalyptus tree of lovely foliage and long drooping branches covered with a mass of pinkish red capsules. It was a fine sight. The tree is about 30 ft. tall and very ornamental. From the Litiping Yangtze-Mekong watershed (summit) I am sending you seeds of a fine blue Iris, and seeds of a tall Anemone 3-4 ft. with large flowers and globose cushions of glossy dark green leaves. Both of these plants grow at altitudes of 10,000-11,000 ft. in moist meadowland.

Tomorrow we are leaving for Tseh Chung on the Mekong, which is seven days north of here, thence to Atuntze (Chinese characters) in the extreme N. W. of this province, 3 days north of Tseh Chung (Chinese characters). From Atuntze I shall go southeast to the famous Pei ma shan (Chinese characters) or white horse mountain, over 20,000 ft. in height, for the purpose of photographing the landscape. We shall return to Yangtze on the Mekong, cross over on a rope bridge to Londrje and ascend the sacred Dokerla and the slopes of Ka'a Kerpu, the highest mountain in this region, well over 22,000 ft. From Atuntze we shall go to Yakalo, called Yen Ching in Chinese. It is already in Smohuan and on the exact border of Tibet. From here I shall try to make Garthok in Tibet and thence cross over to Batang, 10 days north of it. We must then return to Likiang, for much seed will have accumulated there and what the men collected, now working in the mountains of the Mekong-Salween and Salween-Irrawaddy divide in southeastern Tibet. I have parties

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out collecting seed in the high mountains of Laohün shan (Chinese characters), La pako and Kin ts shan, west of Likiang and of the Yangtze. Were it not for these seed shipments and the number of boxes with birds and plants to be despatched, I would continue on to Kansu and thence across to Peking. But one cannot do more than one thing at a time. My plans on my return to Likiang are as follows: I will devote all my time to photography and writing. The seed collecting season will be well over (January). I will go north from Likiang to Feng ku, cross the Yangtze by ferry and make for the Nashi town of Yangning, thence, should the air be clear (robbers) to Mili or Muli, the Raifan independent Lama Kingdom. Thence to Yen yüan and from there to Ning yüan fu in the Chien chang valley in Sza chuan, latitude about 28° - a little less, and longitude about 102° 15'. At Ning yüan fu I shall try to make arrangements with the nearest Lolo chief of the Ta liang shan range to cross the "Independent Lolo country" to Ta kuan ting in Yunnan and thence to Sul fu - Chungking - Shanghai. Of course, this is tentative, for such may happen in such a disturbed and unsettled country as this. At any rate, I shall try hard to accomplish this. No one has ever crossed the Lolo Independent territory. I shall have no Chinese with me, so there will ~~be~~ be not much to fear. I prefer the tribes people to the cold, scheming, cruel Chinese.

Now, one word more, - it may be a little early to talk about this, but, nevertheless you may broach the subject to our friend Dr. Grosvenor.

Either in the winter of 1924 or the early spring of 1925 I should like to travel from Peking to the Kokonoy, thence down Kansu, enter northeastern Tibet where lives a famous Tibetan queen and explore the Amne Machin range said to be the highest range in the world. General Percire who passed it on his way to Lhaasa swears that it is higher than the Himalayas. He said to me it is the most beautiful mountain mass he had ever seen. He had of course only a little vest pocket camera, and you can imagine the results.

I think my pictures this year will be better than any I have ever taken. Please do not take this as a boast, but simply as a statement. I am sure you and Dr. Grosvenor will be delighted with them. I have many interesting photos of the tribes people, especially of the Nashi, and even subtribes of the Nashi in their different costumes, photos of their religious ceremonies, priests, etc. Little is known about the Nashi, and still less has been written about them.

I will close now for the present.

With kindest regards to yourself, Mrs. Fairchild, Nancy and all the friends,

As ever yours,

(Sgd) J. F. Rock.

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Magai, March 23, 1934.
Yunnan, China.

My dear Dr. Fairchild:

We left Likiang on March 5th at 8 a.m. and arrived here on March 21st without mishap. I have been detained here for two days, as brigands to the number of 300 are active between here and Wuting, the latter place being 3 stages from Yunnanfu. The brigands came within 8 miles of this place yesterday, burned a village and killed 40 men and women, after looting the place. I do not know what you wish to call it, good luck or providence, but something told me to stay here a day and give the caravan a rest, although it is not an agreeable place, the elevation being only 4,000 ft. and it is as hot as on the Arizona desert. A runner came on the evening of my arrival here to warn a certain rich man not to travel for brigands had looted and burned a village near Wuting, carrying off 13 girls and 8 men. I took this runner to the Yamen or Magistrate, and he feigned surprise, saying there was nothing to fear, that the road was open, etc. Well, I stayed just the same. Yesterday evening he came and called on me in this wretched Chinese Inn with a letter which he had received, stating that 300 robbers were only 2 hours journey away from here and on the route I was to have gone yesterday. So he begged me to stay another day. Last night I went to bed with all my clothes on, for they expected a visit from the brigands. This place was visited twice by brigands last November and a month ago. Last February they came 800 strong, stayed 3 days, burnt half the town and carried off everything of value. With these visits still fresh in the minds of the people, they were quite excited. However, they did not come, and I am to start tomorrow with 300 soldiers who are to arrive today from Tsochia two stages north of here. I may state that it will take some persuasion to make me take this journey over again, and I for one shall be glad to give this part of the world a wide berth for some time to come. Travelling is hard enough; for days we traveled over an eroded country without so much as a bush. The people use grass as fuel, after having cut down every available woody plant. The inns are awful, full of opium smokers, and a more sickening odor than that of burning opium does not exist to my mind. Add to this the lousy condition of the people, unwashed, the myriads of flies, filthy, undrinkable water, and you can get a faint idea of travel in this country. I am longing for a nice clean hotel, decent food and a rest under a civilized government. Hoping that I will get out of this wretched country safely and soon be able to shake hands with you in Washington, I remain,

As ever yours,

(Sgd) Joseph F. Rock.

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