

**FARRER'S
LAST JOURNEY**

UPPER BURMA 1919-1920

BY

E. H. M. COX

[1926]

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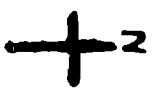
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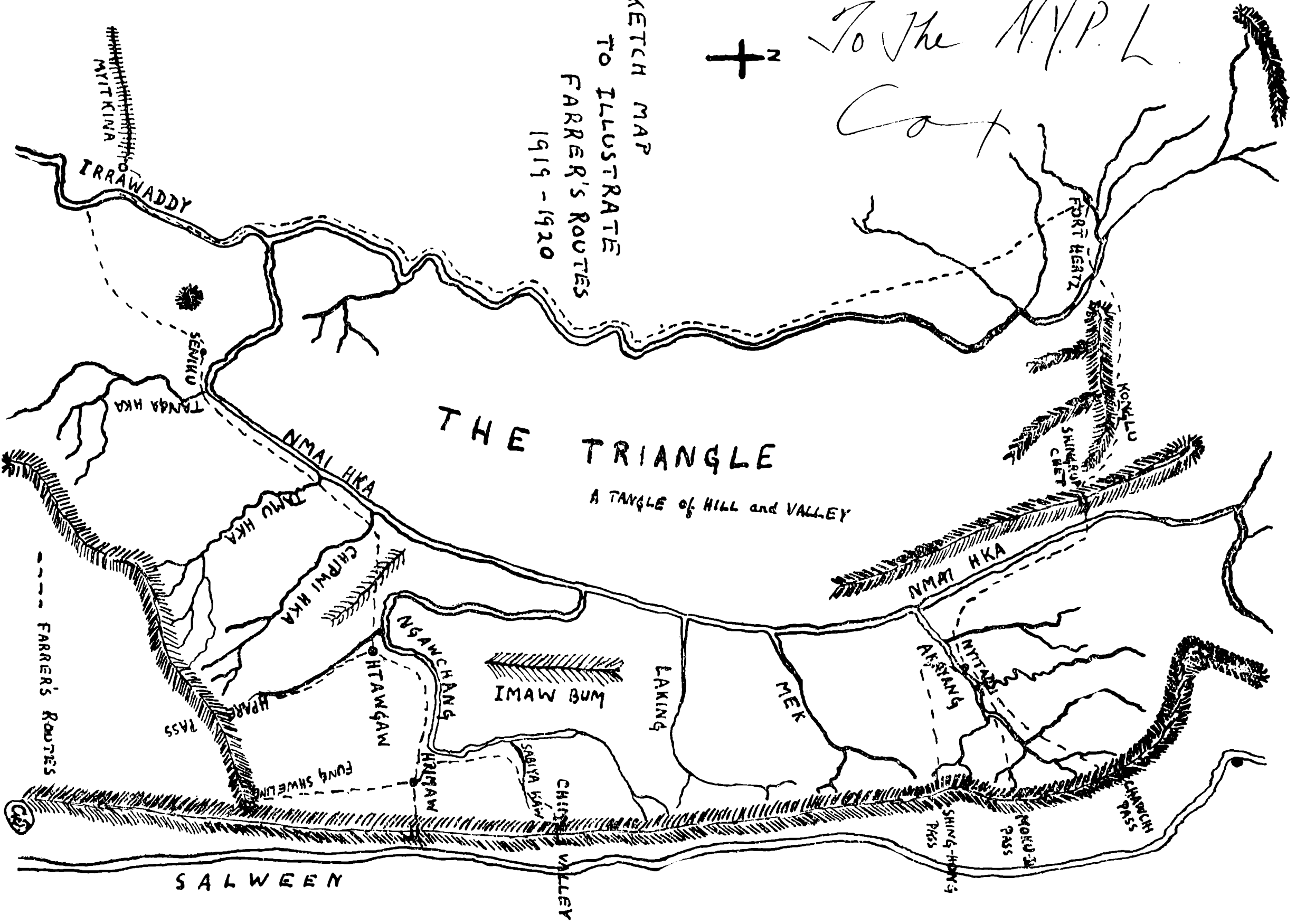
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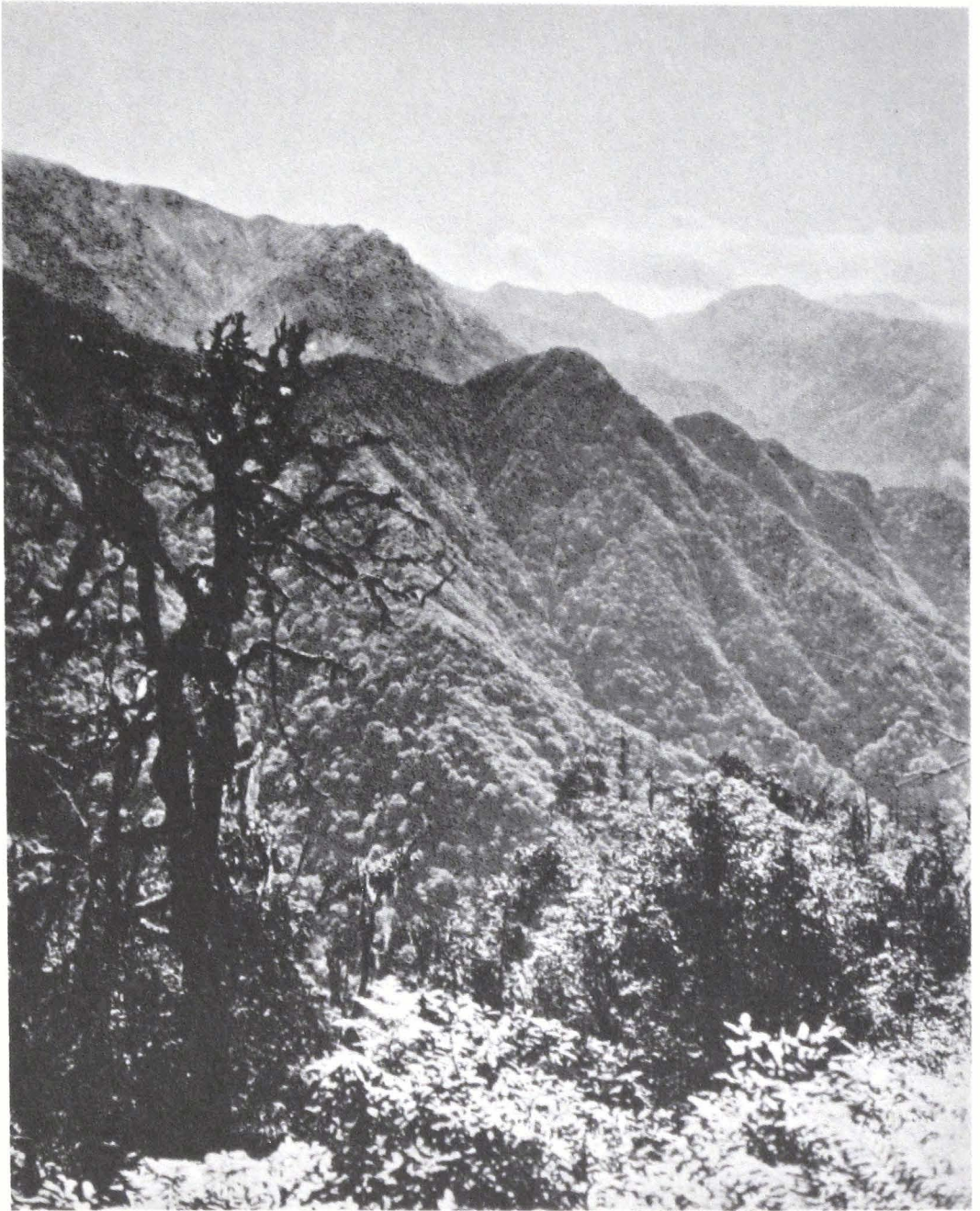
SKETCH MAP
TO ILLUSTRATE
FARRER'S ROUTES
1919 - 1920



THE TRIANGLE

A TANGLE of HILL and VALLEY

YUNNAN



TYPICAL FORESTED HILLSIDES OF THE BURMESE FRONTIER

FARRER'S LAST JOURNEY

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UPPER BURMA, 1919-20

BY

E. H. M. COX

TOGETHER WITH A COMPLETE LIST OF ALL RHODODENDRONS
COLLECTED BY REGINALD FARRER, AND HIS FIELD NOTES,
COMPILED BY MISS HELEN T. MAXWELL, ASSISTANT IN THE
HERBARIUM OF THE ROYAL BOTANIC GARDEN, EDINBURGH

WITH 28 ILLUSTRATIONS FROM
PHOTOGRAPHS BY THE AUTHOR

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TO
ERNEST GYE

PREFACE

OWING to family reasons, I have been unable to make use of Farrer's own diaries, which would have been of the greatest assistance in compiling the account of his second year after I left him and returned home.

I am much indebted to the Editor of the *Gardeners' Chronicle* for his kind permission to quote at length from Farrer's articles which appeared during 1919, 1920, and 1921, to Lady Waechter and Mr. E. F. Gye for permission to include some of Farrer's letters to them, to Professor W. W. Smith for allowing me to quote from Farrer's letters to Sir Isaac Bailey Balfour.

Above all, I am under a great debt of gratitude to Professor W. W. Smith, Mr. W. E. Evans, and Mr. H. F. Tagg, of the Royal Botanic Garden, Edinburgh, for their unfailing help. Their wonderful knowledge of the flora of Eastern Asia has always been at my disposal, and I have made full use of it. I have also to thank Mr. J. B. Stevenson for elucidating some points about a few of the Rhododendrons that we found.

I am much indebted to Miss Maxwell, of the Royal Botanic Garden, Edinburgh, for compiling the list that is printed in Appendix B of all Rhododendrons collected by Farrer, together with his field notes thereon.

Finally, I must thank the Directors of Country Life, Ltd., for permission to use fourteen of the illustrations that accompany this volume.

E. H. M. COX.

LONDON,
September, 1926.

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INTRODUCTION

It is sometimes said that the pleasantest journeys are those made with the least preparation; in other words, that plans made long in advance arouse the imagination, and that expectations are, on occasion, more satisfactory than their realization.

Perhaps that is partly the explanation of the happy year I spent with Farrer looking for plants in Upper Burma. We started off without any plan at all. I remember the occasion of our decision so well; the War was just over, and Farrer was in a nursing home recovering from an operation. I climbed innumerable stairs and interrupted a tea-party where Armistice politics were being discussed. The guests left, and Farrer exclaimed that the hills were empty and the times seemed propitious. Somebody suggested—I have forgotten which of us—that we should join forces. Our trip was settled in five minutes, and in another fifteen we had decided on somewhere in Upper Burma. In six weeks we were off with a complete outfit, but with a very vague idea of our ultimate goal. It just happened. We bolted from England on the first available steamer, only too thankful to be off to some country where there were high hills sufficiently unexplored.

Six years have now passed since Farrer's death in October, 1920; but even after this length of time, I believe that many who have followed his wanderings both on the European Alps and on the Marches of Tibet in far Kansu may be interested to learn something of his

last two years that were spent on the frontier ranges between Upper Burma and Yunnan. Had he lived, he would have written his own tale in his own vivid style. As he is dead, I have attempted to fill the gap and describe something of the country and the marvellous flora to be found on those hills.

There is a rule that no author should start a book by making excuses for what he has written; but on this occasion I think that some explanation is necessary. A long time has elapsed since I spent that year of 1919 with Farrer, and, although the main facts are still vivid, yet six years blunt the memory of those little personal pleasures and disappointments that Farrer used to describe with such charm. Nor can I lay claim to his extraordinary retentive memory, that was able to lock away the least important happening in its own docket and produce it fresh and unaltered when the right moment arose. Above all, it must be remembered that conditions in the Burmese Alps are entirely different from anything that Farrer had experienced before. In the past he had travelled in countries that had a background of an ancient civilization, however wild he may have found the inhabitants. Also, he had never had to experience a monsoon; for in Kansu the climate had been that which exists among the high hills throughout most of the world; whereas in Upper Burma it rains, almost without ceasing, from the end of June until October. Luckily the memory is more retentive over the pleasant experiences in life, and much that was sodden and depressing I have forgotten. In short, there was a breath of adventure throughout the entire Kansu expedition, as all who have read *On the Eaves of the World* and *The Rainbow Bridge* must realize.

Such adventure does not exist in the Burmese Alps. We advanced beyond historical Burma; for history does

not exist in those hills. And there we found no background, nothing except the stern purposes of life, the instinct to give birth, come to maturity and die; and this applies as much to humans as to beasts and plants. Life is so difficult, that the inhabitants have not only a hard tussle in wresting their means of living from Nature, a tussle that goes on constantly in all parts of the world, but they also have to wage ceaseless warfare against Nature's encroachment. The area north of the confluence of the two main streams, the N'mai hka and the M'li hka, that form the Irrawady, is not only a geographical tangle of mountains and valleys, but is a tangle of innumerable tribes, all, with the exception of the Kachins in the south and the Lissus of the high hills, low in the human scale, and hardly able to eke out a precarious living from their mountain valleys. We found little attractive about them. I hope I have shown in the following chapters that there are few corners of the world so unfit for human habitation. Owing to the moisture brought by the monsoon vegetation reigns supreme. It is fierce and relentless, and clearings that are left fallow are jungle in two years. In sheer self-defence the natives have evolved a pernicious system of clearing, sowing, reaping, and leaving the steep hillsides. This means that the jungle that holds the soil on the slopes by means of its roots is destroyed, with consequent landslides that are devastating in their force, so that even the contours of valleys are changed. Ultimately vegetation again slowly begins to build up soil, and the vicious circle begins again.

The Government are doing all they can to help them by introducing potatoes and showing them how to make permanent fields, but the population is so sparse and communications so difficult that improvements are slow.

That is but one example of the overpowering strength of plant life in those hills. It is no wonder that the people lack spirit with such forces arrayed against them. They have no comforts, no thoughts except the constant fear that their harvest will fail, and that they will starve, no religion other than animism, the propitiation of the evil spirits of fire, water, women that die in childbirth, and so on—the religion of fear.

It will be seen, therefore, that there was little human to interest us. What Farrer would have made of the people, if he had written this book, I do not know. After the first few days he felt the lack of interest so keenly that he would have nothing to do with any of the inhabitants except the Lissus. He shut himself up in his work and clung fiercely to the threads of civilization that were left us. With such an involved nature as his, he required some foil to the work on hand; and this did not exist except in his own brain. I believe that he was happy during those last two years, but it was a happiness only gained by dint of great self-control, as, indeed, he says in one of his letters of the second year after I had left him. Still, he had a peculiar power of living within himself and an extreme facility of imagination that stood him in good stead.

Above all, he had his work, and that he adored. Few, perhaps, realize the labour attached to serious plant collecting. If you have not done it, you may conjure up pleasant days among woodland or on alpine meadows, where the collector picks here and picks there plants that go into a collecting tin and ultimately into a press, and that there the work ends. Such an impression, if you have it, is wrong. The collector in a new area has certain definite tasks to perform. Collecting is probably the kind of life he likes to lead, otherwise he would not do it; but there is usually a syndicate at home who has taken

shares in the expedition, and so the collector must get results. The area that he has chosen must be thoroughly worked and as little as possible left to chance. There are two methods of working, one to march during the flowering season from point A to point B and then to return by the same route in the autumn and collect what you can of the harvest. That is not the better way, as you may miss your most important plants. The second is to settle in an area and work it thoroughly. That means that you must journey to and fro throughout its extent, not once, but many times, so that you may catch the various flowering and seeding seasons. By that means you are reasonably certain of finding the cream of the flora. Having found a plant, you must search for the best forms, which must not only go into the collecting tin, but must be marked so that you may collect the best seed in the autumn. Back at camp you must superintend the drying of the specimens; you must write up the field notes, that should be as full as possible, so that the growers at home may try and grow them under approximately the same conditions. Then the harvest must be attended to. The merits of each plant have to be discussed and a decision made as to whether it is worth sending the seed or not. Seeds have to be collected when they are ripe, which entails considerable organization; they must be dried, cleaned, and packeted with the number corresponding to the specimen clearly marked. In addition, there are the ordinary worries of the traveller over staff and supplies. A conscientious collector has little time for other things during daylight, while after dark he is so tired and sleepy that bed is the only place for him.

Many who may be keen gardeners are inclined to look upon the plant collector as a mixed blessing. They say that too many new plants are introduced, and that a

large proportion of them are of no use for the ordinary garden. There is truth in that argument; but why should the collector be blamed? He has to rely upon his own judgment regarding the beauty of a plant. Within certain areas, whence plants come that are likely to succeed, he must collect seed of all that come up to his standard of beauty. He is unable to tell, any more than anyone else, whether they are going to be good garden plants or not. In his turn he probably blames the growers for committing plants to the dust heap—plants that he has seen in their full glory and considers magnificent.

The truth of the matter, of course, is that no one man in this country, however keen he may be, has sufficient space, or skill, or inclination to grow everything that is collected. What is wanted is a central clearing station where, under competent supervision, all new plants could be grown and tested in quantity. When sufficient time has elapsed, they would pass before a committee in judgment, not a single plant at the first time of flowering, but in numbers large enough to tell of its ultimate value. Those that are passed could be propagated and distributed; those that fail would be thrown away. Theoretically, this is a good plan; but I am afraid that in practice it would be impracticable.

Farrer took his duties very seriously and was extremely punctilious when judging a plant. Considering that he only spent three seasons in the East—for no seed came home in the year that he died—the introductions that stand to his credit are exceedingly high in quality; they include *Viburnum fragrans*, *Gentiana Farreri*, *Buddleia alternifolia*, *Berberis kansuensis*, *Aster Farreri*, *Meconopsis quintuplinervia*, all from the Kansu expedition; and from 1919 *Rhododendron myrtilloides*, *Rhododendron calostrotum*, *Rhododendron*

aiolosalpinx, *Berberis Wallichianum*, *Berberis capillaris*, and many others that have not been sufficiently tested as yet.

Farrer had a great eye for a plant and sufficient judgment to tell its garden value. He was forceful and dogmatic in his decisions, and his was not a nature that would brook opposition, with the consequence that throughout his life he always had some plant argument or other on his hands. This was a state of affairs that he loved. His enormous enthusiasm carried him through to such an extent, indeed, that he was ultra-optimistic about his finds succeeding in gardens at home. That many of them have proved so difficult is nobody's fault. At least, he introduced sufficient good garden plants for him to be counted among the great collectors.

About our own personal contact there is little that can be said. His character was so intricate that it is impossible to lay down the law and make definite statements. All who knew him well recognized his moods, and, if they were wise, laid their plans accordingly. His learning was quite out of the ordinary, and I was content to sit at the feet of the master. A year is a long time to be alone with a single companion, but we came through with flying colours and with our friendship unimpaired.

I revere his memory.

PART I

FARRER'S LAST JOURNEY

CHAPTER I

THE START

Most people think of Burma as a tropical land, a country of mile after mile of rice-fields, of hot sleepy villages inhabited by a happy smiling people. If their imagination carries them further, they can hear the tinkling of pagoda bells and build up a vision of Mandalay and the River Irrawady, and all the thousand and one things that belong to a placid country somewhere near the equator. They never hear of an enormous area to the north into which hills and valleys are crushed so tightly that range touches range in intimate association. This is the northern, and larger, part of Upper Burma, an area in itself as large as Scotland.

Those of you who have read Farrer's two books on his Kansu expedition must entirely disassociate yourselves from his former wanderings: Kansu has a background; the hills of Upper Burma have none. The Kansu marches are inhabited by an old and highly civilized people, whether Chinese or Tibetans, while this back-water is sparsely populated by numerous tribes, possibly the original inhabitants of more fertile territory, who have taken sanctuary in this pleated tangle of hill and valley. Ethnologically they are undoubtedly interesting, but they are backward and lack the ages behind them that one cannot ignore when living among the Chinese.

These Lashis and Marus have no history and little character on which one can work a pattern. There are no Mr. Pungs or Grandmother Aaos to leaven the account of our months of collecting; we lived in the hills and on ourselves. Even Farrer's sociable disposition quailed at the thought of hobnobbing with the hill tribes, and his habit of giving intimate nicknames was never brought into use except with the staff. He sums up the conditions admirably in a letter:

“There is no rainy season here, remember, which means that it merely pours solidly for twenty-three hours out of every twenty-four from June to November. The chief drawback of the country, apart from its preposterous climate and its utter lack of art, antiquity and architecture, is its almost universal vesture of forest and copse.”

His remarks on the weather are a little sweeping; otherwise he describes the drawbacks in a nutshell.

The greatest geographical feature in Burma, Upper and Lower, is the river Irrawady. In the lowlands it forms a main artery of traffic and is one of Burma's greatest assets; in the hills it is often a nuisance, since the whole country is built round its two branches and their tributaries. The hills are almost invariably precipitous and the steep slopes run right down to the bed of the stream, which makes communications, except on the few government tracks, a matter of extreme difficulty, particularly during the rains. Even native bridges made of twisted bamboo are few and far between. A few miles above Myitkina, the railhead in Upper Burma, the Irrawady divides into two streams, the M'li hka to the west and the N'mai hka to the east. These form a Siamese-twin backbone to which everything gravitates.

Somewhere in this wilderness we decided to collect plants. At some time or another Farrer had annexed an old map made, as far as I can remember, under missionary guidance, a fact in itself odd, for missionaries are not allowed north of Myitkina. This map showed tortuous rivers and had a large amount of alluring white blanks, which were entirely unnecessary, for the whole area has been surveyed and excellent maps have been printed, which are, however, kept in Government offices under lock and key. The Indian Government is just as jealous of this frontier, impassable though it is, as of the more explosive west. We thought vaguely that it would be pleasant to spend a season on the frontier range which divides Burma from a little offshoot of Tibet that runs southward between Assam and China, the range on which the M'li hka rises. In Rangoon we were shown once and for all that this was out of the question. Transport was the difficulty, as that range and its foothills are practically uninhabited, and coolies are unobtainable. Those who are of a sufficiently enquiring turn of mind to wish to read about this trackless wilderness cannot do better than read Kingdon Ward's account of it in the last few chapters of *From China to Hkamti Long*. He crossed it from north-east to south-west and suffered many hardships.

Before readers suffer agonies from trying to pronounce place-names, I must state that the spelling tries to be phonetic, wherein it differs from place-names in China which succeed admirably in being as unlike the proper pronunciation as possible. It will be seen that there are a number of names beginning with H followed by a consonant, such as Hpimaw, Htawgaw, hka—the last means river. The nearest method of pronunciation to which I can get is to breathe out through the mouth as

if one were out of breath, and then suddenly shut off the breath with the hard P or T or K.

Since we were forbidden the Tibetan frontier, we had to cast about for a more approachable neighbourhood, and finally settled on Hpimaw, a military police post on the frontier range between Burma and China about 150 miles north-north-east of Myitkina. This was a much more sophisticated area with a weekly post, a telegraph, and a hospital, but its plant possibilities were still unknown. Both Forrest and Kingdon Ward had crossed previously from China to Burma by way of the Hpimaw Pass, but neither of them had had time to collect more than a few herbarium specimens, and the seed harvest was quite untouched. On March 15, therefore, we packed our goods and chattels and hied ourselves to Myitkina by train.

Myitkina is a pleasant little town lying on the bank of the Irrawady, from which it is separated by a large bund. The train trundles over the last of the hot dry hillocks and runs down the remaining few miles through fields mixed with thin scrub. A few tin shanties appear, then the police barracks, as ugly as barracks always are, a shaded road or two in which lie the court-house, the club, and the bungalows. Nearer the river lies the bazaar and the native town. It is like hundreds of other out-post towns; but it is saved from the appalling desolation of corrugated iron and mud huts by its situation and its cosmopolitan population; for the M'li hka and N'mai hka, which join a few miles above, flow past in connubial felicity after their race down from the high alps, while Chinese, Ghurkas, Shans, Burmese, Kachins, all congregate in the town. The real Irrawady sweeps by, and, except for a few miles of defile, it floats placidly in the same stately fashion until it reaches the sea 1,300 miles away. On the far bank jungle-clad foothills slope down

to the river and away beyond through the hot haze loom the faintest outlines of the advance guard of the mountains. For all its serenity Myitkina is an important little town, as it is the entrepot and supply base of a country the size of Scotland. From it supply trains set out for the few scattered outposts by which the Government keeps its finger on the pulse of the marches.

In Myitkina our serious work began. There our staff had to be collected and our caravan arranged for. As usual, the staff was a difficult problem, especially the cook. The ordinary European-trained servant is useless; he wants a butcher and grocer nearby; he is not good at doing without. For Europeans camping in the East, and, indeed, everywhere, the life of the expedition centres round the cook; he is the keystone of the camp. My idea of camping may be luxurious, but to leave one's inside at the mercy of any cook for nine months is a different thing to a day or two in a tent, where any deficiency in the culinary art can be made good by applying to Messrs. Fortnum and Mason. A well-satisfied interior is distinctly comforting when camping under every kind of condition is a necessity.

On the morning after our arrival we hastened to pay our respects to Colonel Lee, the commander of the Ghurka police. How that good man must have hated us! After the shortest breathing-space we rattled off our wants. Whenever one of us stopped, the other took up the tale. Still, he bore it all with fortitude, and was kindness itself. He at once solved one difficulty by lending us two orderlies for the season and, what was more, ponies and grooms to take us to Hpimaw, neither of which aids to comfort had entered our heads. We were duly grateful, but our gratitude increased by leaps and bounds when we realized what a treasure he had lent us in Jange Bhaju, our head orderly, who at once

took entire charge on his shoulders. He was a host in himself, a thin, good-humoured Ghurka, approaching middle age, quiet, efficient, and never put out by any of the difficulties that always crop up. He remained with us throughout the first season, and was with Farrer until his death.

The Colonel was more doubtful about the cook; for, as he remarked, a good jungle cook was a pearl of great price. However, he started the ball rolling, and sent word to the bazaar, which at once roused itself. We were freely discussed, and it was decided that two ignorant Englishmen off to the hills were ripe for plucking, which was probably true. All the scallywags of the neighbourhood, Chinese, Kachins, Indians, and Shans, borrowed an umbrella, a sure sign of intercourse with Europeans, and padded to our bungalow. Morals and character meant nothing, but the rudiments of knowledge of the cook-pot was a necessity, and they were all shown the door. After four hours of interviews we were in despair, and Farrer, who was always despondent about getting a cook, had made up his mind to teach a wild man from the woods how to scramble eggs and leave the rest to Nature, as he did in Kansu, when along came a Chittagonian with a note from the Colonel to say that he could cook after a fashion, and was accustomed to camping. We grabbed this straw, and after a feeble attempt at haggling, Sona was duly engaged on the understanding that he produced his own help. He began by browbeating us, a habit that he kept up until his dismissal, and disappeared with a substantial advance, to return a few hours later very much the worse for wear with a lugubrious friend in tow, one Suriman Ghurka.

Sona was a rascal of the deepest dye, but he has at least one good act to his credit in hiring Suriman for us, who proved a most faithful treasure for all his unpre-

possessing appearance and rabbit-teeth. He was of medium height and heavily built for a Ghurka, always wore a black coat, and was never seen without a woollen helmet with a tapitoorie on the top like that on a glengarry bonnet. We promptly nicknamed him "The Dragon"; Sona, on the other hand, was such an unlovable person that he never rose to the dignity of a nickname. As usual, our staff increased as time went on, and at the end we had a chokra and two personal coolies.

While fussing about the staff, we had a parallel fuss over transport on our hands. The authorities in Rangoon had been pleasant but filled with that gloom that so frequently exists in Government departments, and produced—like rabbits out of a bag—reasons why we should not get transport: mules that came from China for the transport season and disappeared again at the end of March; such mules as there were would be so worn out as to be useless; surra, a kind of mule influenza, had decimated all the mules in Yunnan. Thus and thus were we encouraged, until Farrer's gorge rose, and he said that we were going to Hpimaw, even if we had to wheel our belongings in front of us. Actually we found Myitkina full of mules, and had no difficulty in hiring as many as we wanted.

After four days of hectic fusses and unpacking and repacking of stores, when our only relaxation was an hour or two's hospitality at the club of an evening, we were ready to start. At the last moment our numbers were swelled by the addition of a Burmese plant collector and his brother. They flashed across the horizon like comets. After tramping all the way to Hpimaw, they found the first night's cold there too much for them. One developed colic and the other received word of a providential but sudden death amongst those nearest and dearest to him. We knew that this was so,

because he showed us the telegram announcing his bereavement.

The great day dawned without a cloud in the sky, and with a gentle breeze flowing out from the mountains in the north. We were up with the lark. Bullock carts had been ordered early to carry our bales and cases to the ferry, but the town was awake and setting about its day's work before they heaved up to our door. Then Sona disappeared. He was searched for high and low, and was finally run to ground in a tinsmith's shop in the bazaar superintending the making of an oven for the masters' bread out of two old kerosene tins.

By eleven everything was stowed away on the launch, orderlies, servants, grooms, ponies, bales, boxes, and cases, and with a final toot the launch swung out from the bank on its way to Wangmaw two miles downstream on the far bank. Once arrived, we sat peacefully on the top of the bank while the muleteers scrambled for the loads. And such a scramble! for these little rats of beasts were very different from the strapping mules of Kansu and the North. These were about the size of a donkey, while their backs were scarified where previous loads had rubbed away the hair and skin. Most of our stores were packed in bales and kerosene boxes that were of handy size for the pack-saddle; these were popular, but our tents and poles of odd weights and lengths were the object of much wrangling and bickering. Bhaju was here, there, and everywhere soothing and advising, and by degrees loads were arranged to everyone's satisfaction.

Meanwhile I was getting my first lesson in mule matters. Farrer told me of the curious telepathy that exists between the muleteers and their charges, how talk and fuss was a safety valve, and how they are both obstinate when they are dour and silent. The men are

kind to their animals, not from any friendly feeling, but because it pays; for a sick mule will delay a convoy for days, which is a bother when the contract is made out for distance and not for time. The men swear at their mules ferociously, but never touch them except with an occasional playful smack on the buttocks, when the animals lay back their ears and let fly with their hind-legs. The muleteer then knows that his beasts are in good spirits, and his own rise in sympathy. Luckily Bhaju had had long experience of Yunnanese mule caravans and could handle them perfectly. We mounted at length and started off on the first short stretch of nine miles with our cavalcade of 24 mules, 5 muleteers, 2 orderlies, 2 grooms, 2 servants, and several hangers-on tailing out behind us.

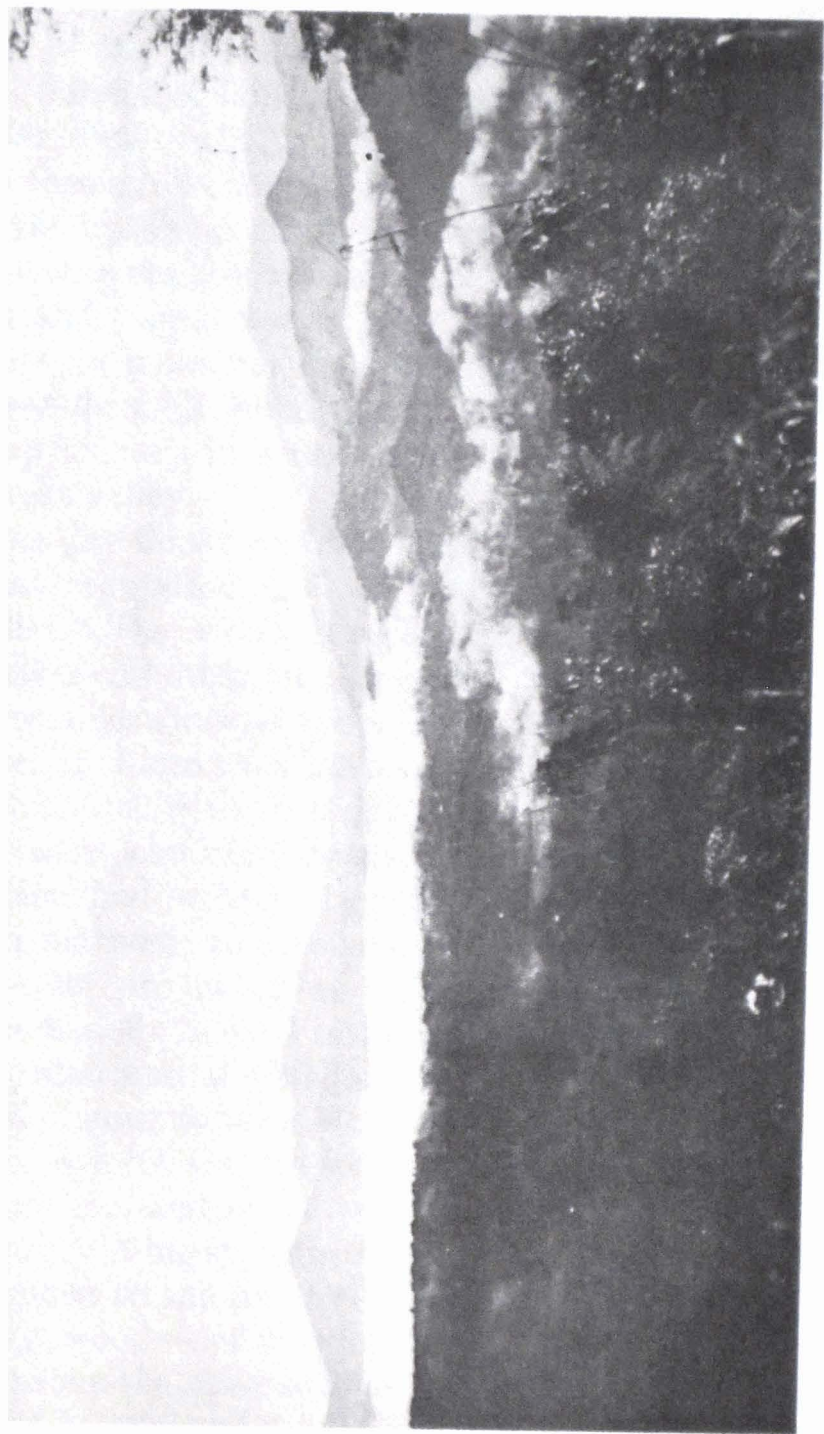
Straightway we plunged into the forest, a dull forest of unending unbroken green. Tropical forest is the same the world over, and only varies in degree. Everything is damp and reeks of rotting vegetation. It is impossible in the rains and uncomfortable in the heat, when the air is dead, and a breath of wind rarely breaks through the canopy. Early morning is the best time in the jungle; a jungle cock crows; you sweep aside the mosquito curtain and find that the water in the big earthenware jug has a nip in it. A pleasant acrid smell of wood smoke is wafted up from the cook-hut. You watch the early morning sunlight filtering through the trees and the night mists slowly rising to disappear in the blue vault above. You hear all sorts of unexpected and kindly noises; even the crickets make a more musical and less mechanical sound; you smell all kinds of delicious earthy smells, since the sun and heat have not had time to bring out the grosser odours that lie heavy in your nostrils at midday. For many, the smell of the East lingers longest in the memory. It is not the simple

predominant smell of a birch coppice or pine wood at home; in the jungle the first sniff may be earthy, the second native, the third smoke mingled with food, the fourth unrecognizable. It is the complexity of the sniffs that fascinates.

As this was a Government road, it was well supplied with dak bungalows, often palatial buildings of timber, at the worst bamboo shacks with thatched roofs. The bungalow at Wowsong, the end of our first stage, was charming. It was perched 40 feet above a large-sized brook that opened out into a shingly lagoon where the mules could wallow in the cool of the evening. The only blot on this sylvan scene was a hideous suspension bridge that crossed the brook where the track swung out of the jungle, flung itself over this monstrosity large enough to carry London traffic, and swept on into the forest again. We could not conceive the need for this preposterous erection until towards evening we heard a terrific commotion among the mules. We rushed out only to find a tooting Ford among a mass of squealing mules. Vague rumours had been floating around that the Public Works Department were making a motor road, but these had been put down to a bazaar canard.

On the next morning we began the ordinary routine of mule travel in the East: up at daybreak, a rapid breakfast, on the road by 7.30. This is the only comfortable way, as mid-March, even in the foothills, is hot and stuffy. With an early start and a stage short compared to those in China, we reached the next bungalow in time for an afternoon nap.

The road for the next two stages lay through almost uninhabited forest with not a village to be seen, and only a very occasional clearing, but at the end of the third day we mounted a gradual rise and came out on a bracken-clad knoll on which lay the Seniku bungalow.



MIST LYING IN THE N'MAI VALLEY, NORTH OF SENIKU

Below us, stretching far to the north, was the broad valley of the N'mai, guarded on either side by ranges about 5,000 feet in height that closed in on the river in the far distance. At our feet was a heavily jungled plain through which ran the silver ribbon of the river. Everything was seen on this hot afternoon through a gossamer curtain of blue smoke. On each hillside the scrub and jungle was in process of being burnt off in patches to make clearings for the summer crops. In the windless air hundreds of smoke spirals crept up and up to hang in a motionless blue-grey canopy over the great valley.

Some day Cooks will run tours to Seniku, since it has a great reputation in Upper Burma as a sportsman's paradise. The wooded plain and lower hills swarm with tiger and other big game, while the N'mai hka, two or three miles away, is said to be one of the best stretches of river in Burma for mahseer. The dak bungalow is even honoured with a fishing book. Some of the catches given were certainly heavy, but several disgruntled fishermen had written disparaging remarks about the Seniku mahseer; so presumably fish in the N'mai hka can be as provoking as elsewhere. Apparently the fish are usually hooked in the eddies at the edge of the main stream and, if a big fellow gets out and runs down, the loss of your tackle is a certainty. There is no doubt that fish over 60 lbs. are common, so a heavy, short rod, a strong line, and an immense amount of backing are necessary. A big spoon is the usual lure, and this should be attached to the line by a long steel trace; probably a heavy wood—not cane—bait rod and a silex reel would prove the most reliable. The first run is always the most severe, and must be checked if the tackle is to be saved. This is for the information of fishermen in case they ever find themselves in that neighbourhood.

Between the N'mai hka and the M'li hka lies a stretch of country called the Triangle, which is unadministered, an island of native territory surrounded by Upper Burma. The reason for this strange isolation is economy. The N'mai is so large and savage that there are only three ferries in a hundred miles, while the M'li, although smaller and more placid, is also impassable during the rains; thus the inhabitants of the Triangle are safely railed off and can do no serious mischief. Moreover, it is an even more tangled mass of mountain and valley than the rest of the country, with no means of communication and of no possible economic or strategical value. The Government of Burma, therefore, has wisely decided to save the expense of an expedition and leaves it alone. It is inhabited by various tribes of Marus, of the same race as those who inhabit the narrow corridor between the N'mai and China.

The road beyond Seniku turns north and skirts the lower slopes of the hills. Although the frontier range at this point is neither very high nor very steep, yet it is folded like corrugated paper, partly owing to its formation and partly by erosion during the rains. This means that the road follows every fold of the hills to save unnecessary bridging. Every few miles a deep tangled chine breaks the contour and runs down to the N'mai with steep slopes heavily coppiced or matted with undergrowth and a clear rocky stream at the bottom. These chines make travelling tiresome, as the road has to take a long detour upstream to a point where it can be easily bridged, and then follow the opposite bank downstream until the main slopes are reached again.

Our interest was mainly taken up with an occasional glimpse of the N'mai, often a mile below us; for here was a great river of Asia running a course like that of any

highland burn. Everything was magnified, pools, rapids, slacks; the boulders were often the size of a two-roomed cottage, while the shingle was made up of stones many pounds in weight, for all the scourings have been carried down throughout the centuries to form the fertile soil of Lower Burma. The N'mai is endued by the natives with a spirit so evil that it must be propitiated at all costs: and little wonder. It is sinister in the rains and out. Its roar is always hungry, and so is the appearance of its surface. Most terrifying of all are the pools. For a second or two they are glassy; then tiny circles appear that in turn give place to concave cups which finally disappear with a swish and a gurgle, and the surface becomes glassy again. No one can play pranks with the N'mai; as far as its junction with the M'li it carries with it some of the dour ferocity of the Tibetan alps which give it birth. Doubtless in years to come it will be tamed, as it could supply power sufficient for the needs of the whole of Burma.

For four days we followed the N'mai northwards on a road that clung to every voluminous fold in the hills. It was dull travelling and desperately hot, and our only solace was a wallow in the cool waters of the stream that we found at the end of each stage. Dotted along the hillsides were the fields of the Marus, sometimes permanent terraces where they grew rice, more often patches carved out of the jungle where maize and buckwheat were grown. Above the fields the hillsides relapsed into jungle again that reached to the very top. For all this scrappy cultivation we saw little of the people. Each little community has been shut in for so many years that they had not yet learned to leave their own tiny patch of territory, although the road was then seven years old. There was none of the polyglot stream of humanity that can be seen on any Eastern highway.

These hills have been dead for so many years that the inhabitants have not yet learned to use, or abuse, the advantages that a fatherly Government has given them. We saw few travellers on the road; now and again a Government convoy slipped past, and once some Afghan horse-copers trudged by on their way south—Heaven knows where they came from—and our caravan clacked incessantly for an hour afterwards.

Each morning we set out on our ponies with our lunch in our pockets, followed by Sona entirely sheltered under an enormous Chinese hat that he had picked up somewhere. He certainly lived up to his reputation as a traveller, for he was a magnificent walker with an eagle eye for a short-cut, and was the only one who kept up with us.

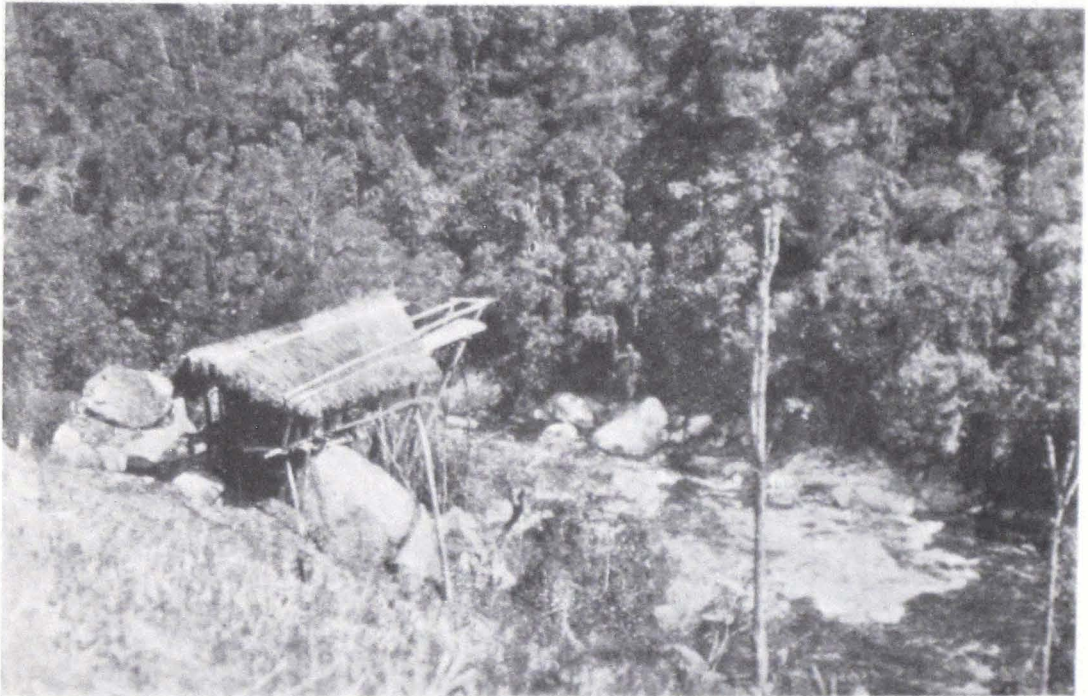
There might have been more to interest us in the coppiced gullies; but there was nothing as yet with the slightest pretensions of hardiness. There were certainly masses of Roses and of a vivid rose form of *Rhododendron indicum* (F. 800) crowding the fringes of the shingle beds by the side of the N'mai; there were even occasional stragglers of such tender beauties as *Buddleia asiatica* and *Lonicera Hildebrandi*, both so luxuriant in their loveliness that we longed for their hardiness. But the finest sight was a Bauhinia that overhung the clear rocky pools of the smaller streams and clung to the wooded slopes. As Farrer said, this was

“so unanimously flowered that on the high slopes of the jungle it stands out like a blooming Cherry-tree in a Chinese picture.”

It was a low-growing widespread tree with a curious butterfly-shaped flower of a delicate shell-pink with a dash of deep crimson on the upper segment.



A LASHI'S OPIUM PATCH



A MARU HUT FROM WHICH HE KEEPS WATCH OVER HIS CROPS

In the early afternoon heat we would arrive at our bungalow, closely followed by Sona, who would interview the durwan and then disappear into the cook-hut to snooze until the Dragon and the Burmese collectors trailed in, while still later our caravan would arrive shepherded by the faithful Bhaju and his underling. It was a somnolent stage of the journey, but it was made during the full heat of March, and it was an empty road. Even villages were scarce, and all we saw were tucked away hundreds of feet above us in folds in the hills.

Then came the afternoon bathe. On one of these occasions, at Chipwi, we were discovered by Clerk, who was in charge of the district. He, poor man, had had no word of our arrival, and was mightily surprised to look over a suspension bridge and see two strange men, whose only clothing was a sun-bonnet, reclining in a rocky pool that might have been made for a titan. We rushed out and introduced ourselves and, notwithstanding our surprising introduction, we spent a very pleasant evening together.

The hills close in on the N'mai above Chipwi where the river comes down from the north through a jungle-clad gorge, so precipitous and difficult that even the natives circle round the back of the hills. Where the river opens out there is an enormous shingle bed, stretching for half a mile at low water. Here we found the entire village from the tiniest tots to grannies busily engaged in turning over the stones and eating the beasts to be found underneath. The Maru is nothing if not eclectic in his diet, and a beetle or slug squeezed between finger and thumb makes a succulent morsel and a welcome change to the usual vegetarian diet.

The bungalow at Chipwi has a particularly charming situation on the bank of a crystal-clear rocky brook overhung by masses of gnarled Bauhinias. Here is an

important village made up of a dozen or so of the long, low-eaved, communal bamboo huts, in each of which several families reside. It was also the situation of Clerk's trial patch of the black-stemmed sugar cane which he was trying at that time to introduce, and which was the apple of his eye. The Marus work spasmodically, but they are a lazy race whose motto is "sufficient for the day." Their clothing is of the usual Chinese blue cotton, and they are incredibly dirty. As they are a lowland tribe, we saw little of them, and what little we saw did not impress us.

Beyond the Chipwi bridge the road left the N'mai and climbed the ridge to the Hpyepat Pass. It soon passed from the gravelly sand of the lower foothills to a heavy, viscid, black soil that retained every footmark for weeks and clung to one's boots with a dragging persistence. This is the region of the rain forest which clothes every foot of ground between the heights of 5,000 and 9,000 feet. At first sight there is little difference between rain forest and tropical jungle; the growth is the same, the undergrowth is just as abundant, creepers, parasites, moss and lichen festoon the branches in the same luxuriant tangle, there is the same feeling of the unconquerable force of vegetation; but there is a difference, although what it is is hard to determine. Perhaps it is a subtle distinction of odour. The air is certainly rawer, and there is none of the sweet sickliness of a tropic jungle where growth is so consistent that it is hardly noticed. For me the rain forest gives a constant impression of an English wood in early autumn where decay is just beginning to set in: I can imagine the earth below this leafy canopy as a gigantic digestive force that engulfs and assimilates all that is shed from above only to have all this nutriment sucked in and sent skywards again by the cobwebs of roots that run through the

earth. This is a feeling that any wood may give, but in that rain forest it was intensified to such a degree that there was something cannibalistic about it.

When we crossed the Hpyepat, there had already been a month's drought, yet the soil was still as sticky and as black as treacle. The path kept to a spur of the range and zigzagged in easy gradients with occasional long sweeps where the ridge flattened out. There was little to interest us on the lower slopes, entirely enclosed as they were by forest, except the occasional appearance of a Hornbill, that queer bird that seemed to suit its surroundings. Everyone has seen them at the Zoo, with curious squat bodies surmounted by large bony heads from which sticks out a grotesque wedge-shaped beak. They look odd enough wrapped in meditation at the Zoo, but a thousand times more odd when they flap slowly across the path urged on by beats of ridiculously undersized wings and with beaks outstretched from which they produce honks like those of a waterlogged motorhorn. This was apparently their mating season, but such lugubrious love-music was never heard.

Round bend after bend we wound on that hot, stuffy day with a purple tinge to the haze that warned us that thunder was not far away. Slowly the heavy forest gave way to great thickets of bamboo bordered by big trees. Here we were overtaken by Bhaju, who arrived in time to pry several leeches off Farrer's knees and regaled him with a running comment on the treatment of leeches in general, and of the ferocity of the Hpyepat leech in particular; for, apparently, the fame of this pass as a haunt of these creatures had reached as far as Myitkina. Even Clerk, accustomed as he was to insect life, crossed the Hpyepat as seldom as possible during the rains, when these bamboo thickets are alive with them, and every bamboo wakes to life on the approach

of a human with dozens and dozens of hooped bits of slime making for their prey. This is no exaggeration, as anyone who knows these hills will tell you. The odd thing is that I have never heard anyone explain what leeches feed on. Humans and animals that pass through the jungle cannot supply one per cent. of the nutriment necessary to those ferocious vermin.

The vegetation became less dense as we neared the top. The first thing to revive our interest was a clump of an enormous *Alocasia* with flat platter-like leaves 20 inches in diameter of the most brilliant pea-green imaginable. This we introduced, and it has flourished in my greenhouse ever since, but with no approach to the coarse magnificence that it flaunted by the path side. Then we rounded a corner, and with a snort of joy Farrer scrambled off his pony. Ahead was a thin copse that held not only our first *Rhododendron*—for who can call the azaleoid *R. indicum* a *Rhododendron*?—but also a *Styrax* and a thin spindly Cherry of the woods. The *Rhododendron* was a weedy tree of 40 to 50 feet, with a brick-red trunk and far up in its leafy canopy masses of soft pink flowers that shone through the green like a rich pink *Begonia*. This proved to be *R. Mackenzianum* (F. 801), a soft thing for all its beauty; but then all the members of its series, the *Stamineum*, are useless in this country both outside and in, for they are too long and weedy to flower in any greenhouse. Later we found a tree in the open outside our bungalow at Hpimaw where the curiously exotic look of its foliage and flowers was more apparent. To the unaccustomed eye this is not so noticeable, but its yearly growth was abnormally long compared with other species, a sure sign that the conditions in which it lived cannot be equalled in this climate.

The tall *Styrax* (*Pterostyrax burmanicus*) had very soft

translucent white flowers with a delicious aromatic smell. Both *Rhododendron* and *Styrax* were so devoid of lower branches that the only way we could collect specimens was to shoot them down, a proceeding that evoked squawks of protest from the staff, who considered this a sinful waste of cartridges. Even the shotgun failed to bring down anything except a flutter of petals from the Cherry that towered above its neighbours, a giant among Geans.

We lunched beneath our *Rhododendron*, and then slid down the hill to a gully tucked away in the range, where we spent the night in the most ramshackle of all the bungalows on this road. It was rarely used, as both Clerk and Candy, who was in charge of the military police, preferred to cross the Hpyepat as quickly as possible, and marched from Langyang to Chipwi in a day. However, at that time we were not so hard and leathery as afterwards, and so were thankful to find a stopping-place. It was cold and dank in that gully at 8,000 feet, and we were glad of the rusty stove, especially as the rain came down after nightfall with a steady persistence.

The day dawned as clear as crystal, and on climbing up out of our hollow we had our first view of the real hills. We looked down on a vast teacup ridged with spurs that ran down from the high peaks to the middle of the cup. The lower slopes were covered with Bracken and groves of Oak and a long-needled Pine, while above the forest commenced again to end a few hundred yards below the high tops. That is a curious anomaly in a country that suffers from the full force of the monsoon, but it is quite common for the hollows to be dry and the upper slopes sopping wet. Doubtless the tops bear the full brunt of the rain, and the slopes are sufficiently steep to carry off the water before it has soaked in. In fact, as soon as we arrived we noticed the extreme

scarcity of springs. On one of the spurs in the middle distance perched Htawgaw, the district headquarters, with its fort and huts like barnacles clinging to the side of a rock. To our left lay the last spur of Imaw Bum, a tremendous isolated mass on which Kingdon Ward collected later in the same year, while ahead in the far distance appeared our hunting-ground, the mountains of the frontier above Hpimaw, a long gaunt ridge, with patches of snow just visible through our glasses.

We lay on a bank sprinkled with a tiny pink Begonia, and traced the Ngaw Chang from the point where it disappeared into a gorge to join the N'mai a few miles away right up the valley past Htawgaw, where it bent round to the left through a fold in the hills. The night's rain had cleared the haze from the air, and the whole panorama lay in front of us etched with a minute sharpness, too clearly, had we but known it, for clouds rolled up with startling suddenness and billows of dense mist blotted out fold after fold of the hills as if some gigantic hand was wiping a slate clean. Then the thunder came, and we scurried down the hill to Langyang bungalow drenched to the skin. The storm passed as quickly and just as entrancing was the unfolding of the landscape. The clouds thinned, and we suddenly found ourselves with blue sky overhead and surrounded by billowing masses of vapour, rolling over and over each other in their hurry to be gone. The masses of cotton-wool grew smaller and smaller; then suddenly the curtain was drawn aside, until in ten minutes all that was to be seen were little wisps of cloud serenely floating along the side of the hill.

On the next day the path wound along the bank of the Ngaw Chang, which was to be a constant companion on our journeys. Here it was a placid mountain stream running over shingles and ledges of rock with steep

wooded slopes running into it on the far bank and an occasional Maru clearing between the path and the river. Then came lunch and the final long, hot climb to Htawgaw, which we reached in time for one of Candy's hospitable teas. Our mules and staff by this time were rather jaded; indeed, several of the mules struck work at the bottom of the hill, and it was dark before the indefatigable Bhaju and the muleteers had coaxed and hauled the last of them up the dusty track. Much as we wanted to move on the next day, it was quite impossible, so a day's rest was ordered for everybody.

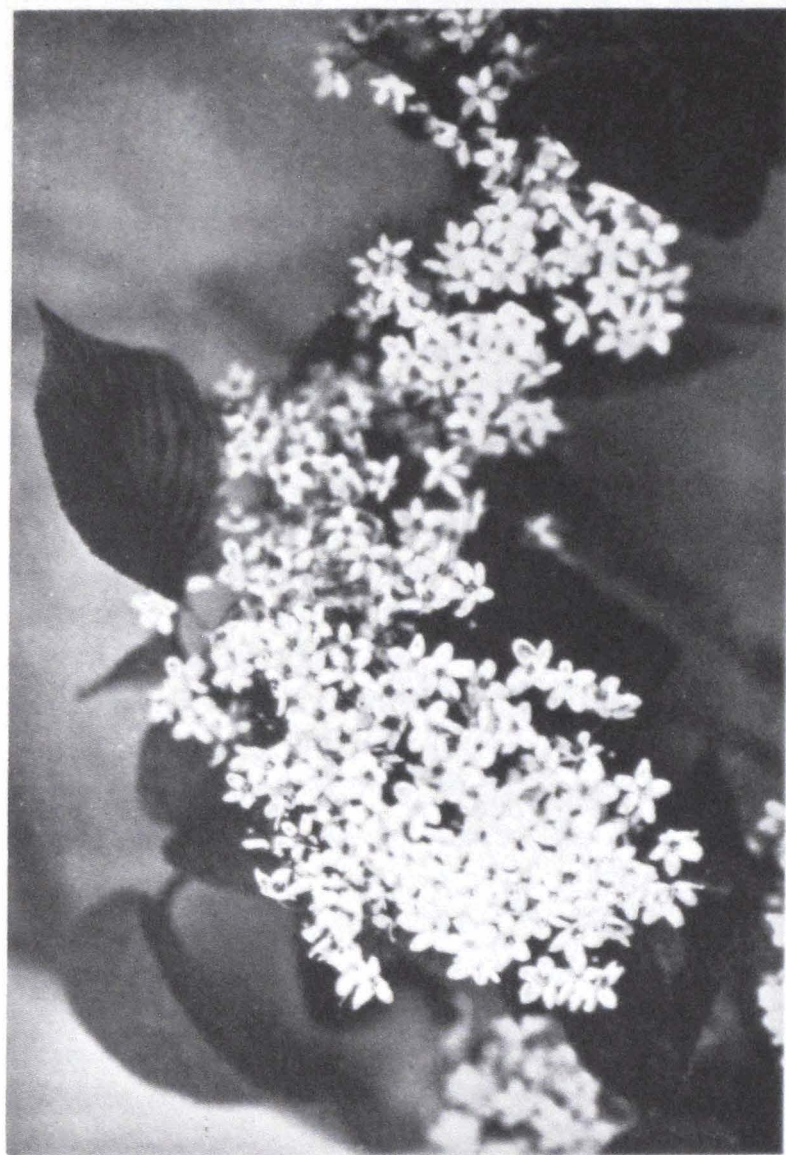
Htawgaw post occupies two hummocks on a long and, for that country, level ridge that juts out from the frontier range. One hummock is occupied by the commandant's bungalow, the other by the glorified mud hut that is euphemistically called the fort. On a lower level sits Clerk's bungalow, while around the fort cluster the post office and store and the military police quarters, and below stretch bracken-clad slopes with scrub clustering the edge of the gullies.

This sounds drab and uninteresting, which it was; for it was nothing more than a miniature cantonment, such as may be seen throughout India, stuck like a warty excrescence on a ridge sweeping down to a valley sunk deep in the hills. But however painstakingly a fatherly Government tries to make it a suitable home for its Ghurka police, yet it was saved for us by its view. Htawgaw lies midway between the hills of the N'mai and the mountains of the frontier. Straight ahead beyond the Ngaw Chang rise jungled slope upon jungled slope in great sweeps culminating in a tiny morsel of a peak, all that is visible of the long ridged top of Imaw Bum. To the right, towering above the valley of the Ngaw Chang, we gazed upon an arc of the semicircle that surrounds Hpimaw. Whoever chose Htawgaw had a

wonderful eye for a situation, since it was certainly the only spot within fifty miles with such a wide panorama.

Here we rested for two nights while Bhaju and the muleteers tried to patch up our caravan for the final three days' toil to Hpimaw. So far the staff had been efficient. Sona had been fairly peaceable, although I can remember some small fuss on the road over a bunch of unripe bananas that clung to us for days. Like the Hebridean oranges, they were tough when boiled, and leathery when roasted, while Bhaju told us with disgust that even the mules refused to eat them raw. For this bunch of indiarubber fruit we had, apparently, been charged an anna or two too much, and it was hinted that Sona had shared the extra profit with their raiser.

On leaving Htawgaw we struck down the winding path to the valley of the Ngaw Chang, only stopping to collect on the dry hillside a bushy azaleoid *Rhododendron* (F. 806) with pale shell-pink flowers that clustered in little hollows and gullies wherever it could escape from the scorching noonday sun. It was a poor little thing, rather like a mediocre and wizened pink *R. rhombicum*, but we admired it as the first plant of genteel growth that we had seen. Once in the valley across the Ngaw Chang there was much more in evidence. The valley had actually a floor to it on which rice-fields sloped gently in terraces down to the river, and every mile or two this floor was broken by deep cool chines that carried off the water from the lower slopes of Imaw Bum. There was also a far larger population than we had yet seen, and a number of villages were scattered about, usually in a grove of trees on the banks of a gully. It was hot and pleasant there with the air smelling deliciously of beans planted on each little ridge between the rice-fields. These gullies gave us two new *Rhododendrons*; the first (F. 809) a magnificent white, obviously closely



VIBURNUM WARDII

akin to *R. ciliicalyx*, as sweetly clove-scented and certainly as tender but with larger and stouter flowers. If I remember rightly, its substance was more noticeable than that of most of the series *Maddeni*, while the tube was longer, and the flowers were full and less flat than that of *R. ciliicalyx*. This luxuriated in every damp, dripping gully that we passed, where it would nestle in a rocky crack and send out its twisting branches laden with great waxen blooms, like blobs of ivory enshrined in the darkest of green. Seed was sent home, but whether it has survived even in the greenhouse I do not know. The other *Rhododendron* (F. 808) was a shapely bush of man size as thickly studded with deep salmon-pink flowers as any *Azalea Hinodigiri*, and of the same shape, though larger. This was an uncommon plant, and we only saw two or three bushes of it in the thin shade at the top of a gully bank.

Bhaju borrowed my rifle on that evening and shot a Sambur on the other side of the river, whereupon the neighbouring village sprang to life, as fresh meat was a rarity. A party set out to rescue the carcass, and four village stalwarts staggered in after dark with the beast on their shoulders. The entire village squatted round a great fire outside our hut waiting patiently while Bhaju and the second orderly cut up the meat. They kept what was required for our needs and sent a quarter to the native officers at Htawgaw, before they portioned out the rest among the villagers. The onlookers held aloft blazing torches, which glinted on rows of gleaming faces and greedy eyes; then torch after torch spluttered, and the light faded until in the dusk the circle looked like a row of vultures, while bits of meat were shoved into the embers and then eaten singed and half raw. It was hours before the grunting and commotion died away in the silence of repletion.

These were Lashis, of a small mongrel tribe that lives in the valleys around Hpimaw and the Salween Valley immediately on the other side of the Hpimaw Pass. They are of a mixed type, and in stature come half-way between the squat Maru of the N'mai Valley and the upstanding Lissu of the highlands. The clothing is practically the same in all these tribes. The men wear loose trousers coming to just below the knee and little coatees, both these garments made of the universal Chinese blue cotton. Their feet are bare, but the calves are protected by loose leggings of a species of canvas. On their heads they wear a tight turban made of yards of twisted blue cotton. The women wear the same as the men with the exception of a short skirt and an occasional wide cummerbund, but their clothes are more carefully made and are sometimes even parti-coloured, blue and white. The women frequently wear large ear-rings, and are passionately devoted to beads and cowries in the shape of bangles, necklaces, or sewn in rows round their middles. In the hot weather and during the rainy season both sexes use the wide, circular Chinese hat, an admirable invention useful both as a sunshade and as an umbrella.

The next stretch was a gentle march under a grilling sun along a road that wandered through a constant succession of fields. A fine Iris of the tectorum type with golden-crested lavender blooms and velvety-purple mottlings round the crest smothered every little patch of marsh by the roadside, while *Agapetes Wardii* (F. 829) clustered on gnarled branches and rocks where they overhung the little streamlets. This is an epiphytic undershrub which also thrives on boulders like so many epiphytes. It is a pleasant and graceful little plant, very twiggy, and with long, narrow trumpets of a waxen crimson; many of the *Agapetes* make excellent

cool-house shrubs, and this one should certainly be added to their number.

Farrer sniffed the air more and more keenly as we neared the hills. He usually rode at the head of our caravan with his field-glasses glued to his eyes, often in the direction of the far bank, when there were frettings and fumings if something was seen flaunting its graces on the other side, and much searching until we found it in some more accessible spot. At noon we rested by the side of the road and watched two elderly and sedate Lashis gathering opium from their poppy patch; and before any reader is carried away with righteous indignation at this cultivation of opium, let me point out that the natives are very poor and thinly clad, and that for generations they have used opium as a febrifuge. They smoke it and eat it in great moderation, and we never saw a single case of overuse or misuse unless it were a Chinaman. Opium smuggling over the border is put down with a heavy hand. The Lashis use a flat knife, shaped like a glazier's, with which they cut vertical incisions in the pods. On the following morning they scrape off the glutinous juice that has exuded, which is carefully stored away in a little ball of leaves until it is required. When fresh the black, sticky mass has rather a sweet, pleasant smell, but it quickly turns rancid after a day or two.

By this time we were drawing close to the frontier range, and at Blackrock, the last bungalow before Hpimaw, we saw the fort above us standing out on a spur of the main range. At Blackrock we left the Ngaw Chang, which bent northwards and ran through a valley between Imaw Bum and the main range. Our road skirted what was almost a level plain, and was certainly the largest since leaving Myitkina. Although so close under the range, every inch was tilled and grew

its patch of rice. It was here that we came across the advance guard of that enormous army of brambles that has invaded almost every corner of Eastern Asia. After the experiences of Wilson and Forrest, we were prepared to find a number of this prolific family, but their diversity was amazing. Farrer described them in the *Gardeners' Chronicle* :

“They are truly an amazing crew, vast and violent weeds that inspire one anew with sympathy for the catalogues that had to try and discover some saleable beauty in each. Some, indeed, do have a single point of attractiveness, a stem of burnished mahogany-brown or milky whitewash.”

The valley of the Ngaw Chang was thick with them, at least twenty species, with pink fruit, with yellow fruit, with scarlet fruit; oblong, oval, wedge-shaped, round; white flowers, yellow flowers, magenta flowers; they were all there. All were useless with the exception of one yellow raspberry that grew on a whitewashed stem after the manner of *Rubus quinqueflorus*; but the most magnificent of all, with a fruit the size of half-a-crown and bright vermilion in colour, not only tasted like blotting paper, but was hollow. I inadvertently sent home seed of some of the most ferocious with thorns made out of steel. I believe that they are serving a useful purpose covering fences in one of the Glasgow parks, where the authorities find them far superior to barbed wire for keeping out small boys.

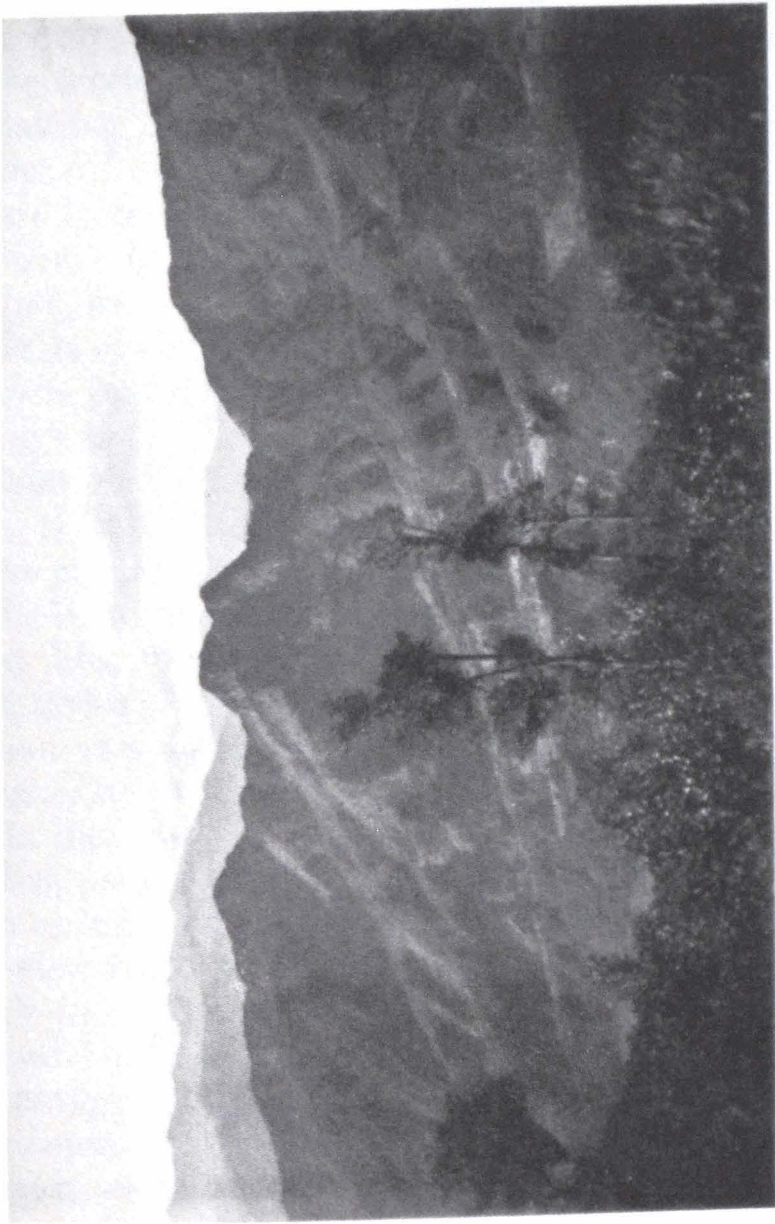
At the bottom of Hpimaw hill we passed through Hpimaw village, a rambling shabby collection of bamboo shacks clustered on the side of the Hpimaw burn. This village was of some importance, however, and boasted a floating population, for it lay at the bottom of the last easy pass between Burma and China.

The final climb was very like that up to Htawgaw, hot, dry banks and inviting-looking gullies that we always found sadly disappointing. We grew hotter and hotter while our caravan tailed away down the plain below us, very tired and very sore. We toiled up the hill, too thankful to be near our destination to bother about a cobalt-blue *Commelina* that sprawled over the path. We climbed on and on round bend after bend until the path opened out on a level patch on which stood the dak bungalow, an austere and dreary residence heavily shaded by trees. Another climb of three hundred yards and we set foot on a badminton court, carved out of the hillside by some energetic police officer, at the far end of which was the police bungalow that was to be our residence for many months. A deputation of two native officers attended us on what was to be our stoop, and we gravely shook hands with the post-commandant, a fine-looking old Ghurka.

CHAPTER II

HPIMAW

ON the next morning we stepped out on our verandah and took our fill of the view. Here we were in a little settlement perched on terraces carved out of the backbone of one of the gigantic lateral spurs that seem such necessary props to the main ranges in Upper Burma. Our bungalow was a roomy building made entirely of wood with a main central sitting-room flanked on either side by bedrooms. As usual, the only furniture was a table and two chairs, and an enormous iron stove that later on in the Rains proved a great boon for drying our bedding and clothes. The badminton court was at one side and the kitchen and servants' quarters at the other. Behind the bungalow lay the post office, store, and sepoy's quarters, each on their own little terrace. Below was a steep drop of 3,000 feet to the Hpimaw burn with the little plain beyond, and still further the valley up which we had come, on the far side of which rose the lower spurs of Imaw Bum, from which one never seemed to escape, reaching up and up until the long ridged summit formed the skyline. We actually looked over the junction of a number of valleys that spread starwise, but so skilfully were the hills and valleys assimilated in the landscape that we might have been in a solid amphitheatre of mountains with the Ngaw Chang valley as the only visible outlet. On the right were the two jungled spurs that held the Hpimaw valley closed in until they joined and swept upwards in one slope to the frontier ridge, a slope that, as viewed



IPIMAW VALLEY FROM THE FORT WITH IMAW BUM IN THE DISTANCE

this first morning through glasses, promised smooth alpine lawns, but in actual fact were tight thickets of Bamboo.

The truth is that the whole country is overgrown: it is nothing more than a gigantic propagating bed. Except on the dry, hot banks of the Ngaw Chang, every square inch is taken up by vegetation of some kind or another. In fact, there is no room for it all on the ground, which is perhaps the reason for the amazing numbers of epiphytes, parasites, Mosses, Ferns, Lichens, creepers, crawlers, and trailers that smother the trees in the forest. The wastage of energy and life that goes on continually must be enormous; for, except on the tops, there is little room for seedlings that come up to arrive at maturity. It is only when a clearing has been made that you can gauge the extraordinary force of plant life; it is a fight to the finish, and the plant that grows the fastest usually wins. They say that human existence is a question of the survival of the fittest. It is nothing in comparison with the cruelty of life in the forest.

It is, perhaps, unfair to the country to start off with such an uninspired description; but marvellous as was the view from our verandah it was formless. Further north in the Chimili we were moved to rapture, but around Hpimaw everything lacked shape, partly from the nature of the country, for no hill that we could see ever aspired to a definite peak, and partly by the interminable clothing of vegetation that covered every portion of the hillside, jungle on the lower slopes, with bamboo and rhododendron scrub beginning about 10,000 feet. It was a dead land, with nothing to break the monotony of jungle and hill; all the slopes had the same close-cropped appearance, culminating in ridges that seemed to go on and on for ever.

Still, it had its beauty. Never was there such a country for changing colours. Owing to the tangled character of hill and valley, the sun was always playing queer tricks with the shadows. Farrer was accustomed to while away an occasional hour in sketching, and he felt this deadness keenly. In a letter he wrote:

“It is too absolutely lacking in human interest or emotional appeal of any sort. The colours, of course, are beyond words; but they are also *far* beyond my rendering, and anyhow I could not make much even out of colour, unless some interest were also aroused. China gave one odds and ends of buildings, temples, and so on to stimulate and appeal, but here the only humanizing touch that has yet kindled my brush has been a comely little bamboo hut in front of a dark gorge.”

Our first two days were spent in a state of relief at not having to live on our boxes. We and the staff settled down and unpacked. Our numbers were increased, as always happens, by the son of the bungalow caretaker, a solemn, small Ghurka imp, called Umbeh, with an extraordinary power of taking on a wooden expression when scolded. We spent hours in wandering about Hpimaw and poking our noses into odd corners. We examined our surroundings sufficiently to see that the main flowering season was still a week or two off. We did, however, find our first *Primula*, a lavender-blue *Capitata*, that has been named *P. limnoica* (F. 823), very sturdy and free flowering and covered with an abundance of white meal. It carpeted the hot, grassy banks above Hpimaw, and even wandered on to the miniature parade ground. For several years it has grown successfully at home, but it is so like the ordinary *P. capitata* of our gardens with its tight, deep violet flowers, that for all horticultural purposes it is the same

plant. The only other plant of interest that showed signs of flower was a gigantic tree, the last remnant of forest on the slope immediately below our bungalow, which had been cleared for a grazing ground for the fort's supply of goats. This was a magnificent specimen of *Gordonia axillaris*, the largest member of the family that contains the Camellias and the Teas. It was so gigantic that even the natives, who usually have no soul above their food, had spared it, probably because it was too big to cut down and the bole too tall for the clearing fire to touch the branches. The first branch was at a height of over 50 feet, and above that, again, a stately pyramid towered, covered twice a year, in April and October, with saucer-shaped white flowers 6 inches in diameter with a blob of golden stamens in the middle. This was the only one that we saw of its kind, and it must have been over 100 feet in height. Right at the top were two or three plants of our F. 848, *Rhododendron supranubium*, a Maddeni with the usual white, sweet-scented flowers that were noticeably large for the size of the plant, which clung precariously as epiphytes in the clefts between the topmost branches.

With the welter of jungle-clad valleys and lower slopes in front of Hpimaw, there was only one way by which we could reach the heights without having to clamber down to the valley and toil up again; this was by turning our backs on the valleys and climbing up the spur on which the fort lay to the Hpimaw Pass. This we did at the first opportunity, as soon as our unpacking was completed.

Between April and November we must have travelled this path eighteen times. I am not exaggerating when I say that a botanist could make the journey every single day throughout the year, and every time would

find something of interest within a hundred yards of the path. It would be difficult to find another place in the world where, within a five-mile climb, so many plants were collected. Even Farrer, with a vast experience of collecting, was impressed. In his usual fashion he began to nickname the more striking finds as we found them, a pleasant habit at the time, but muddling to others who have not seen the plants in their wild state.

Candy had arrived from Htawgaw on the evening before our climb, and insisted upon accompanying us with a squad of Ghurka police. So off we started, on a clear cold morning, with collecting tins and lunch and camera. A few hundred yards above the parade ground we entered the rain forest that covers everything between 5,000 and 9,000 feet—the sequence is easily followed—tropical forest up to 5,000 feet with an occasional short, dry belt, rain forest 5,000 to 9,000 feet, bamboo and rhododendron scrub 9,000 to 10,500 feet, and alpine lawn with dwarf Rhododendrons and Bamboos above that. I suppose that the name “rain forest” means that it has to bear the brunt of the monsoon when it strikes the hills. As a forest it is poor; it is exceedingly mixed, and there is not a stately tree to be seen. They are either old and decrepit or long and lanky; drawn up prematurely by a lack of sunlight or bending at a perilous angle on the side of some gully; and every tree is festooned with lichen like an old billy-goat, and is the host of one or another of the innumerable parasites that feed upon them. In addition decay is so rapid that each fork on a large tree is littered with leaf-mould wherein are clustered entire gardens of Ferns and Orchids and epiphytes. With the exception of Conifers and Magnolias and an odd Viburnum, we saw scarcely a tree worth introducing for its foliage or growth.

This does not mean that the rain forest is uninteresting, but it is the odds and ends that are attractive; not the giants, but their attendants.

We had no sooner entered the forest than we found a Rhododendron. This was *R. araiophyllum* (F. 811), a plant of the *Irroratum* series, and a straggly one at that. It was very uncommon, and was usually seen about 18 feet in height, very spindly and a shy flowerer. What it lacks in some useful qualities it makes up in colour and shape of flower, for the truss is shapely, not too lax and not too tight, and far more campanulate in shape than is usual in the series. The colour is that peculiarly attractive dead ivory-white which always tokens absence of light; in addition there is a blood-red blotch at the base of the interior spreading up the top petals, so brilliant that one could imagine the plant's determination to manufacture its own sunlight. This brilliancy of colour seems to be common in these hills, and strong tones are the rule, not the exception. A little further on we came across another Rhododendron, still in the same patch of dark jungle, a small thin-shanked tree with flowers of a rich crimson, but without that luminosity that we were to find later in *R. Kyawi*. This particular plant, *R. tanastylum*, also of the *Irroratum* series, is so soft in cultivation that nothing more need be said about it. There was yet another Rhododendron in that patch of rain forest, also of the *Irroratum* series, a sturdy shrub of 8 to 15 feet with deep crimson flowers. This was *R. heptamerum* (F. 814).

The path soon deteriorated into a native track, since it was no longer kept up by Government. There was no attempt at road-making; it bumped over enormous tree roots and plunged through little bogs. If a tree fell, no effort was made to remove it; the track went round, and we found it far easier to squelch through the

mud on either side than to keep to the path. The Government is probably wise in leaving this track alone, as the inhabitants on the Chinese side are a mongrel lot of Lashis, and are noted bad characters.

The path kept on along the side of the spur on a very gentle rise, and then, as if remembering that it had to reach the pass, it suddenly shot upwards in half a dozen zigzags, steep and sharp, before clinging to the spurside again on a higher level. Above the zigzags were the remnants of a group of great Hemlock-spruces, some of them just clinging to life, but the majority gaunt skeletons, only standing because there was no room for them to fall. Over one of the corners drooped a fine plant of an *Enkianthus* smothered in yellow and mahogany bells, but probably only a form of *E. campanulatus*, as are most of the genus, however hard botanists may try to find new points and new names for them. At this time there were few other plants of interest at this altitude. On the bankside, where a patch of sunlight fell on them, we found the bright lilac berries of an *Ophiopogon*, hanging like elongated violet currants in short racemes that sprang from tufts of grass-like foliage. The flowers, which are borne in late summer, are like a small *Anemone blanda* in shape, of the common dead-white veined with lilac. That the seeds should hang on throughout the winter speaks well for its value as a garden plant, but so far I have not learnt the trick of flowering it. I have had it in a healthy condition for four years, and have only seen one squinny flower. If the *Ophiopogons* are described at all, they are passed over with the remark that they are of more interest to the botanist than to the gardener; and yet I have a very distinct memory of this particular species as a pleasant little plant that would be useful and charming in a shady and rather damp corner of the rock garden.

If the other species approach this in its haunting charm, it is certainly a neglected genus.

Most collectors have a certain genuine grievance against gardeners at home who specialize in some genus that may be popular at the moment and has a reputation. They are apt to forget the existence of others that may be just as valuable from a gardening point of view, but have no immediate popularity to back them. I should hate to guess how many valuable finds have been lost to general cultivation through lack of patience on the part of the original grower. Collectors are often blamed for gathering a harvest of weeds, and blamed wrongly. It may frequently happen that a plant has a dowdy appearance the first time of flowering; it may improve rapidly, however, when it becomes established, but it often does not get the chance. Farrer, perhaps, has been blamed more than most collectors for painting his descriptions in too vivid colours; as far as my experience goes, he never exaggerated his descriptions of what he saw in the wilds. Somewhere he mentions this point, and says that, far from overstating a plant's beauty, on many occasions he deliberately softens the tone in case he may be accused of exaggeration. Everyone knows, or should know, that many plants are not immediately amenable to garden treatment, and look infinitely better in the wild state; it must also be remembered that even a dowdy can be so decked and staged as to have a distinct charm entirely its own. The truth is that gardeners do not take sufficient pains to find out about a plant's habits and requirements, and so discard it without a fair trial. Collectors are only human, and so many a Cinderella, picked at an auspicious moment, is popped into the collecting tin.

But this is wandering far from the path. In the rain forest the Magnolias were the glory of April and May,

and magnificent they were. We had noticed a few weedy trees around the fort, but it is in the jungle that they show their real form. Even those who have seen the fine trees at Lake Como or the wonderful specimen of *M. macrophylla* at Claremont can hardly realize the magnificence of a full-grown Magnolia in its wild state. In the first thousand feet above the fort two species were common and were invariably so large that we lost the full beauty of their flowers; they were forest trees. The first was a tall, grey-boled tree with bark of the texture of an ash. It was an evergreen, that when we first saw it was spangled with myriads of ivory-cream flowers, deliciously scented and shaped like the sacred lotus. Our first tree stood in a little clearing above the Tsugas. There was not a branch within reach, but Bhaju proved his skill as a climber and, shinning up the smooth trunk, hacked down a branch before we had finished discussing how to get at it. There is some doubt as to whether this is a new species, but it is very close to *M. Pealiana*. The second species burst upon us a few yards further on. Imagine a *M. conspicua* 60 feet in height without a leaf-bud burst, and yet so completely covered with its fat chalice-like ivory cups of some Grecian design that hardly a branch was visible. And this in a tree that was not sparsely branched, but had a bushy, conical top to it.

Even in that climate, where summer sun is at a premium, all Magnolias seem to prefer company and grow either in medium woodland or on the outskirts of the thick jungle. This may be a reason for the failure of many of the Chinese Magnolias in this country, which are usually planted by themselves as specimen trees, and so lose a companionship that is apparently necessary to them. An odd thing about those Magnolias is that we never saw a poor specimen except around the fort,

where they had no chance to excel. Every tree was shapely, and every tree was healthy; this was all the more striking in comparison with the general decrepitude around them. They invariably looked spruce and well groomed. Perhaps, like the elephant, they hide when they feel old age coming upon them, and retire to die unseen.

These slopes, even in midsummer, made poor hunting ground for herbaceous plants. On that day the only thing showing that might be called herbaceous was the fat snout of an *Arizæma*. Even in April little except the *Magnolias* were awake; only a few bushes of *Damnacanthus indicus*, strangely like a dwarf Holly, flaunted their crimson berries in the deepest shade. As we wound up and up along the edge of the ridge, *Rhododendrons* became more and more common, with fat swelling buds almost ready to burst. They slowly lost their lanky ungainliness as the height of the surrounding trees decreased, and so took on their natural buxom form, a shapely crown on top of a thick, gnarled trunk; but *Rhododendrons* come later.

So thickly were we encompassed with jungle that we never had a glimpse of the valleys below us until we suddenly rounded a bend and came out on a grassy knoll with a valley head in front of us, and beyond jungled hills stretching out towards the south-east. But what did we care for the view? In a gully sweeping down to the valley head was tree after tree of a *Magnolia* in full bloom—and such a *Magnolia*. Not a leaf-bud had burst, but every branch was laden with great upstanding cups of a marvellous variety of colour ranging from the purest white through the softest of pinks to a rich salmon and rose flushed with the purple tints seen in the staining of the petals of *M. Soulangiana*. Each cup was fully 6 inches in diameter, and stood out

from the branch with such sturdiness and yet was so much in keeping with the shape and form of the tree that we were entranced. The tree was not high as Magnolias go in that country; some might top 30 feet, but each one was bonneted with a crown like a perfect Scotch Fir. We sat down by the pathside and gazed while a sleet shower passed overhead which the flowers stood without flinching. Farrer was in rhapsodies, and called them flowers as "big as tay-kettles." Here at last was a Magnolia as fine as the famed *M. Campbelliæ*, if not finer, which laughed at sleet and snow, and flowered in April, and so would grace our gardens. Another beauty of this plant was the soft bronze tinge of the young foliage, lovely enough of itself to repay the gardener for waiting for it to flower. This treasure turned out to be *M. rostrata* (F. 816 and F. 1011), which had been found before by Forrest in 1918. Unfortunately, none of the earlier sendings of seed germinated, but Forrest sent seed home again last year, from which a fine stock of seedlings has been raised.

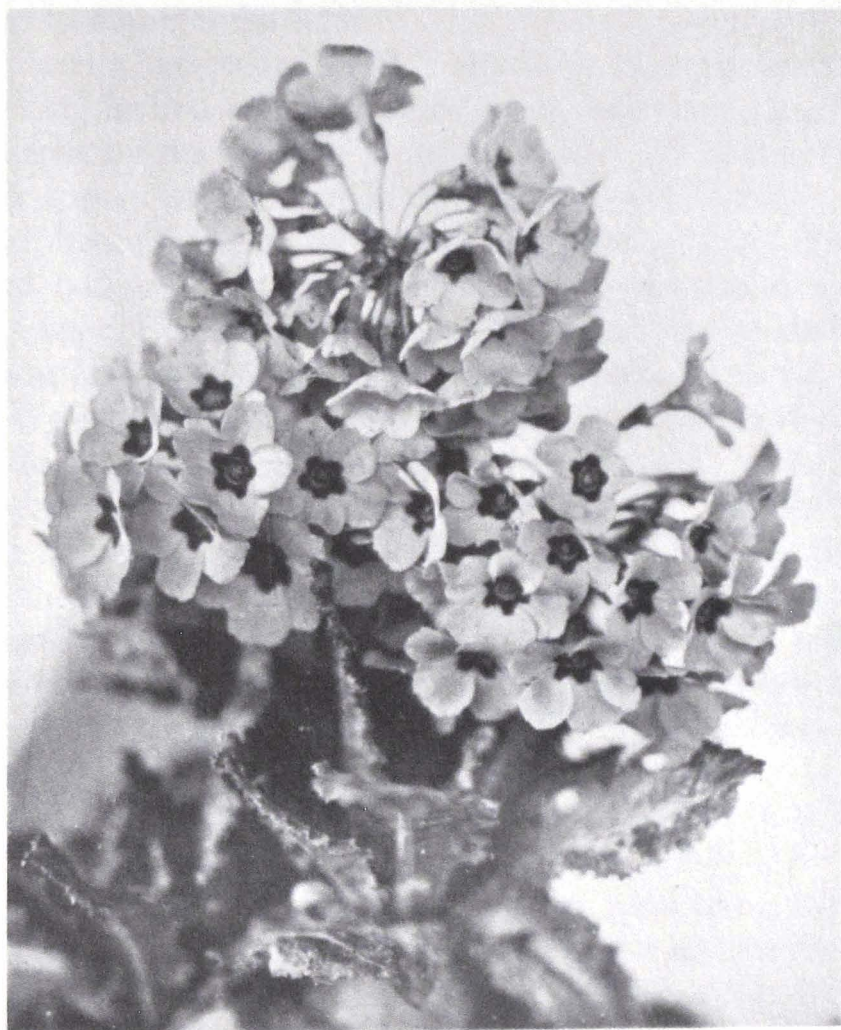
Above Magnolia gully we left the forest and came into the land of Bamboos. Now we saw the reason for those smooth patches of what we thought was short and juicy alpine turf. Bamboo covered everything within sight, keeping to every contour of the hillsides and presenting to our astonished gaze a solid sea of dull greens and browns out of which jutted little round-topped islands of Rhododendrons almost ready to burst into flower. I can keep the full tale of the Bamboo's dour ferocity to another day, for on this first visit there was plenty to interest us on the pathside, and we strayed not a yard from its erratic course. Now that we were nearly on a level with the pass at 10,800 feet, we found a bitter wind blowing, and we jogged along to keep warm, dodging the remains of old snow-drifts that

lay in dirty grey masses on the shady side. Nothing is so deadly as the remains of old snow that has overstayed its welcome. Oddly enough, there were more signs of life at this altitude; a Squill carpeted the pathside, an uninteresting little thing, but a pleasant reminder of spring, while a Smilacina was well up above the ground. At the last bend before the final slope down to the pass—for in many of these passes the path climbs the spur to a point above the actual pass—we walked through an avenue of tree Rhododendrons with great leathery leaves and buds already swollen. The reason for their regularity we never learned; they may have been the remnants of an old Rhododendron forest that had been destroyed, when the ground had been at once swallowed up by the encroaching Bamboo. We were just on the point of finishing for the day when we had our second great surprise. We came upon our first plant of *Primula sonchifolia* in flower. A few days later we came up again to see it in its full glory, but I know that I shall never forget my first glimpse of this marvel of its race.

So that you may not say that I am working up to a climax, let me try and describe it as we saw it. Imagine a great, fat, bright-green cabbage bursting its way out of the old snow. Imagine the serrated leaves unfolding in order to show a patch of concentrated sky within its crown. Imagine a short, fat stem rising up topped with lavender-blue buds. Imagine the stem growing and the buds unfolding into an enormous head of primrose-shaped flowers of a most brilliant blue, and each flower set off with a bright orange eye. With this description as a groundwork, let your imagination run riot, and you will have some idea of what *Primula sonchifolia* looks like. Farrer was over-cautious in describing the colour, and called it lavender-blue; but it is too brilliant for that, and besides it lacks the grey tones that go with lavender.

It is sky-blue with more cobalt in it to make it richer and satisfying to look at. There they were in colonies skirting the pathsides and clustering in the little gullies and marshes where the ground was too wet for Bamboo. As far as you can say it of any plant in that land of wet summers, they liked a moderately full exposure. From their size many of them were several years old, but they were healthy and vigorous enough, as each side of the path was carpeted with seedlings.

This *Primula* is found scattered over a large area up and down the Irrawady-Salween divide, most of them smaller than our form and poor in colour, usually being a palish mauve, while some are even a deep purple. Botanically, it is an interesting plant, and follows closely the rest of the *petiolaris* section to which it belongs, and of which only one, *P. Winteri*, is in cultivation. If it grew in England, it would certainly be a biennial, but in its home it is just as certainly perennial. It flowers in April, and seems to love forcing its way through the snow. That is a condition which is one difficulty, if only it would germinate at home. The seed-capsule is its great oddity. This it sets on the top of a thickened pedicel, and on the top of the capsule is a semi-transparent, dome-shaped lid. Later this lid becomes quite transparent and shrivels away, leaving the seed loose, green, sticky, and, to one's eyes, unripe on the top of the disk. Sometimes in calm weather the seed remains on the disk until it is brown, but it is usually shed while quite green. Some physiological change must take place after the seed is on the ground, but what it is no one knows. Towards the end of summer a small, hard cabbage forms in the heart of the plant, when the present year's growth dies away, having finished its work for the year. We cut through these tiny cabbages early in August, and found in every case that next year's



PRIMULA SONCHIFOLIA

plant was perfectly formed, colour and all, and carefully tucked away for the winter, a method of growth that is highly commendable.

Farrer had heard of this sky-blue *Primula* in far-off Peking from a consular officer, who had crossed over to Burma by way of the Hpimaw Pass. We had been in the throes of excitement for several days before, and had been terrified of disappointment; in fact, Farrer had conjured up the most appalling monstrosities in the way of colour. Once seen, his mind was at rest. I know that it came up to his most sanguine expectations.

We had finished for the day; nothing else could thrill us and, in addition, we were cold and unfed. We had hovered over our *Primula* for so long that Candy had left us in disgust, and had disappeared down the track to the pass to eat his lunch without us. We stumbled down after him along a path that was nothing more than a dirty and icy cold stream from the melting snow, and finally, a hundred yards short of the frontier, sat down under the lea of a bamboo thicket for our late piece. We sat and watched the coolies, who by this time had had time to stagger up from the Salween laden with salt, sugar, or rice. They would halt for a few minutes on the pass and then stumble on, a never ending line of human beasts of burden. Afterwards we went to the frontier and stood for a few minutes in China, looking over the deep purple of the Salween valley with range upon range receding into the cold distance. But we had had our fill of excitement, and could take in no more; so back we turned and raced down the hill to Hpimaw with our collecting tins filled to the brim and very well satisfied with our first outing.

Fine though April and May were supposed to be, the next two days were blustery and showery. Up on the tops were constant snow showers, which at the lower

altitude of Hpimaw turned into driving and chilly rain. In fact, spring comes in in the Burmese hills in very much the same fashion as it does at home. The tantrums of the weather have such a close resemblance to those that we experience in early spring that I have a shrewd suspicion that the lack of hardiness of many of the Burmese plants which come from a considerable height depends more on the weather in autumn than in the early months of the year. The change in Upper Burma from late summer to autumn and from autumn to winter is much smoother than is the case in the British Isles. The air begins to get hard, and the nights, to begin with, are cold without frost. When the frost sets in, it does so gradually with no break of warm muggy weather such as we are accustomed to between two bouts of cold. The consequence is that the plants are ripened in a satisfactory fashion, and feel none of the quickening effect of warm, damp, autumn weather.

Those two days we spent around the fort. There were plants to collect, among them *Rhodoleia Championi*, a tree with red flowers curiously like a *Rhododendron* that had strayed over from Hong Kong. In addition, we had to start to work on pressing our specimens. We had had strong wooden frame presses made in Myitkina, heavy but far stronger and more satisfactory than the ordinary wire ones of commerce. Bhaju was very interested in this operation, and soon learnt how to arrange the flowers and change the blotting paper. Ultimately he became so skilful that during the second year he took the entire work of the specimens into his own capable hands.

Meanwhile Sona and Suriman, finding time rather heavy on their hands, took consolation with the bottle. What with army rum, which the military police were allowed, to keep out the rigours of the climate, and native

spirit, always obtainable in the village at the foot of the hill, it was impossible to keep them from getting liquor when and where they liked, as long as we were in Hpimaw. Ration rum was the more wholesome, and certainly kept out the cold, but the native shamshu, as potent and corroding as any in China, was a different matter. Farrer and I tasted it once and had to eat ice after to cool our gullets. However, Sona certainly preferred it, while Suriman had no violent distaste for it, and nothing we could do would stop them from imbibing large quantities of both. The Dragon was placid in his cups. We soon found out the symptoms; first an asinine grin, then torpor, and finally tears before retiring to sleep it off. Sona, on the other hand, always a ruffian, became aggressive, and affairs between us rapidly came to a climax. The final row, as usually happens, was ridiculous. We had bought rope-soled boots, both for the staff and ourselves as being comfortable and easy to walk in. Sona considered this gift of cheap boots to be an insult, and left his in the middle of my room. Such a breach of discipline could not be allowed, and Candy, wisely remarking that Hindustani was better than English on these occasions, took the matter into his own hands and had Mr. Sona returned to Htawgaw under escort and so back to Myitkina. That was the last we saw of him, and we never regretted it. The Dragon was appointed cook, and became much more dignified, even in his cups.

That was a day made up of fusses and fidgets. Farrer's peace and repose was much disturbed by the arrival of five of Forrest's collectors from Tengyueh with orders to work the frontier range. Farrer considered this, quite unnecessarily, an infringement of his prior manorial rights, and spent the rest of the day in telegraphing and writing to Forrest. As a matter of fact,

there was room for everybody, and neither Forrest nor his men had the slightest idea of encroaching upon our ground. Their orders were to work the Chinese side of the frontier, which was in too disturbed a state for it to be safe for Europeans. We found out later that they had only strolled down from the pass to see what Hpimaw looked like. At any rate, they caused a storm in a teacup, as their advent temporarily disturbed Farrer's poise to such an extent that he spent hours stamping up and down the verandah with his hands firmly clasped behind his back. Those who knew him when he was on the hunt will realize the passing significance of these little storms; for, so keen was he, that any suggestion of what the Americans call "claim jumping" was like a red rag to a bull.

As soon as the weather cleared, we stepped off the stoop and found ourselves clinging on to the hillside with tooth and nail while we scrambled and stumbled our way down to see what we could find at the bottom of the valley. In his articles in the *Gardeners' Chronicle*, Farrer rightly stressed the great variations in vegetation according to altitude. He says:

"The difference of condition here was acute: there is only a walk of four hours between *Primula moscophora* and *Dendrobium nobile*, with Edelweiss all over the place, in the region, not of the *Primula*, but of the *Dendrobium*. On the Chinese side, besides being very much drier and more cultivated, it is also much more open and larger in its lines. On this side the mountains fall sharply in deep skirts of rain forest towards hot, grassy valleys and hill-spurs clothed all over with Bracken, where, however much one may realize the tearfulness of this climate, the effect and look is of a Mediterranean dryness. These valleys, botanically, are dull; the park-like slopes are dotted with Oak and Alder

and Pine, but there is scant hope, down there, of either beautiful or hardy plants or shrubs."

The entire slope below the bungalow was bracken-covered, so thick and tough that the only other plant to gain a foothold was even more dragonish than the Bracken. This was an *Aralia* of 10 to 14 feet, which in April was unrolling its fern-like leaves. Its stem is covered with short thorns, as hard as steel, rising in whorls. Apart from its defensive armour, entirely necessary owing to the predaceous Hpimaw herd of goats that browsed around it, it is a very fine foliage plant and, in addition, it bears great brushes of yellow flowers in September. Oddly enough, considering the comparatively low altitude, it is proving quite hardy in cultivation, and is already 7 feet high in my garden.

At the bottom we found the Hpimaw stream, as playful as any highland burn, tumbling over the rocks into little, deep pools heavily shaded by clumps of Alders. Bhaju waded across and hauled branches into position over which we stepped dry-shod. It was very peaceful and snug in this little valley with the Hpimaw inhabitants busily ploughing the tiny rice terraces between the trees. At the edge of every clump were bushes of a fine form of the universal *Deutzia discolor* (F. 846), so dense in blossom and so graceful in habit that in the distance it looked like the sprays of a very floriferous Lilac. This also has proved hardy, although at Hpimaw it never dared to ascend higher than 8,000 feet. Higher up a fine *Pleione* formed purple splashes on the hillside wherever these had been burned. We were amazed how much scorching some of these plants could stand. This *Pleione* and the Bracken seemed to thrive on it, and grew vigorously six months after the slopes had been burned to the bone.

Although the valley bottom appeared dry compared to the rain forest, yet every boulder and rotten tree stump was covered with an epiphyte of some kind. Dendrobiums, Solomon's Seal, Polypodys, and various Agapetes luxuriated on the driest of dry-looking boulders. We sat on a shingle bed while we ate our cold goat sandwich, and then snoozed in the hot sunshine. Something began to intrude itself on our sleepy vision, and we found ourselves gazing at a white Rhododendron flowering on the top of a cold, black rock under the shade of an Alder. This was the first time we had seen *R. bullatum*, which is so widely spread throughout Yunnan and its borders, and varies little in form but considerably in hardiness. Kingdon Ward has introduced the hardiest form from the Yunnan-Tibetan borderlands, and even that is none too happy in Northern gardens. I have a special affection for this plant; the leaves are so shapely and so pleasantly wrinkled above and felted below, and the big trumpets are so pure in their white and so prettily flushed with pink at the base, and, above all, it has such a hot, rich fragrance of cloves. It has, apparently, no special choice of position. We found it in the open and in deep shade, on rocks, on trees, in the ground. It was shown two years ago at Vincent Square, a neat little plant about a foot high with one glorious flower perched jauntily on the top. It will grow to a bush 6 feet high and the same through. Apart from any question of hardiness, it makes a splendid plant for the cool greenhouse.

We wandered down the burnside towards the village to pay a few calls and see what our neighbours looked like. They proved on acquaintance to be a dull and dour lot, even lazier and more untrustworthy than the usual Lashi, the most spineless and useless of the many tribes that inhabit the marches. As in so many cases,

they had not been improved by contact with the through traffic over the pass, and preferred to batten on passers-by rather than do much honest toil. Two old Chinamen lorded it over them, and had collected all the trade into their hands. It had long been suspected that they were richer than the local trade warranted, and while we were there they were caught open-handed smuggling opium and were promptly deported. One had killed his officer years before in Tengyueh in what he euphemistically called a duel, and had fled to British territory for sanctuary. His fate on deportation was probably typically Chinese. There was little of interest in the village. The huts were ramshackle and dirty, and on a hot afternoon like this the entire village was asleep or out in the fields. What there was to sell was exposed in great wicker tubs or on trestle tables: rolls of blue Chinese cotton cloth, cheap knives and needles, all made in Japan, rice, beans, and a little pork. The beans grew like a French bean, but were bigger in the pod and equally good eating, while the rice, the best I have ever tasted, was in most cases grown locally and thrashed with the last reddish coat left on the grain, giving it that rich, nutty flavour that all good rice should have.

After this we experienced a day or two of that most annoying of all weathers when the upper sky was gloriously fine, but black rainstorms swept around the corners of the hills and, hugging the slopes, blotted out everything in deluges of rain. We made another trip to the pass to fix on a camping ground, no easy matter in those hills, where we could test our equipment and train the staff for a day or two before setting off on a long trip to the Chimili valley. Even at that short interval there was much to interest us. We found, among other things, a fine tree of that most exasperating *Viburnum*, *V. Wardii*, with its great snowy-white

corymbs of little, star-shaped, fertile flowers. The only specimen that we saw of this really magnificent plant was a tree of 40 feet growing by the pathside, and Bhaju had to shin up a thick trunk for 20 feet before he reached a branch and could hack off specimens. *V. Wardii* is exasperating. It fruits extremely well, and in the autumn we found the tree covered with glossy-green drupes. We waited and waited for them to ripen and turn colour, but there was never a sign of changing tint. Then suddenly a storm came and the snow lay for two days. We marched up the hill, expecting a magnificent harvest, only to find that the seed must have ripened at the first flake of snow and fallen. Down on the top of them had fallen every leaf off the surrounding trees, and we were beaten. We grubbed away for half an hour, but never found a seed.

Up in the Rhododendron forest, *R. arizelum* (F. 863) was just showing its tight balls of creamy flowers. This and *R. basilicum* (F. 873), together with what was probably a hybrid between them, lined the pathway for some considerable distance, and showed what they could do, given ample room. They were of great age; but so was the path. Obviously the light and air and freedom from Bamboo that the track gave them allowed them full scope to expand. On this occasion we viewed them through a driving mist, and it was only later that we saw them in their full glory. There was scarcely a tree whose trunk was not at least a foot in diameter, a clean, reddy-gold trunk with polished bark and not a branch to break its symmetry until past the twelve-foot mark. Then strong, sturdy limbs stretched out, of the same ruddy hue, with great leaves flapping in the wind like elephant's ears, and surmounted with dozens upon dozens of large, tight trusses of campanulate flowers, either cream tinged with lemon, or, in the case



RHODODENDRON BASILICUM

of *R. basilicum*, a rich salmon-pink; both with deep crimson blobs at the base. Some people complain of these fat, tight trusses, as being gross and unsuited to the garden, but they may only have seen them on immature specimens. This large-leaved, tight-trussed group give a feeling of strength and broad shoulders in their maturity. It would be incongruous were one to see flopping flowers, however large, like those of *R. Loderi*, on a frame so sturdy that hardly a bough bends let the wind blow a hurricane.

Even in the driving rain we had to stop again and admire *Primula sonchifolia* on the pass, and for so long that we were half frozen. Bhaju took pity on us and shepherded us behind a bamboo clump, where we saw one of the many uses to which that detestable vegetable can be put. However much the rain may pour and the ground be waterlogged, an old cane can be split and the dry pith used to light a fire. Here is a tinder factory always at hand.

No matter what the weather was doing, the pass teemed with life at this time of the year. As we sat eating our lunch on this sopping day, a constant stream of coolies from the Salween staggered up the last few yards of greasy mud and dumped their bamboo baskets on the pathside with a grunt of relief. We had more time that day, and so poked about among the loads. Here was rice from the fertile Yunnan valleys, moulded half-circles of brown sugar, smooth and shiny like boot polish, with a pleasant sweetness all its own once the straw and dirt were skimmed off it, and salt carried on coolie back many a long mile from the salt mines. Everything was wrapped in the admirable Chinese oiled paper. Man after man would appear on the crest, each clothed in the universal blue cotton with gaiters on their shins and a sun-rain hat on their head. Each would pant and

grunt for a few minutes at the top; then stoop down and jerk up with the load on their back, and off down the hill they would trudge. Every now and then mules would appear as a diversion. Most of them were laden with rice; but out of the mist suddenly appeared an old gentleman at the head of a cavalcade of three mules. He was a travelling coppersmith. One mule carried himself and his bedding, the second a selection of his wares, kettles in the conventional classic design, deep-bellied pots, little rice bowls, the third a portable furnace firmly lashed to the saddle. He was the proud possessor of a straggly beard and passed the time of day with us with a charming smile. The surprise of the day was a strapping riding mule hung with bells, on the top of which perched a veiled lady amid a welter of sopping quilts. A retainer armed with a long sword marched at each side. Why this lady of quality should leave China and disappear down the hill Burmawards, not even Bhaju could discover.

A day or two later we packed up for a short stay on the pass, and had our first introduction to the Hpimaw coolie. Twelve strolled up the hill three hours late, a motley crew: an old grandpapa, the village idiot with an incessant grin, three women as agile as goats and far the best workers, three children of uncertain sex, and four sullen-looking men. Bhaju was the most efficient quartermaster I have ever seen. By the time we reached camp our tents were up and three draughty but serviceable hutlets were being fashioned out of Bamboo like magic.

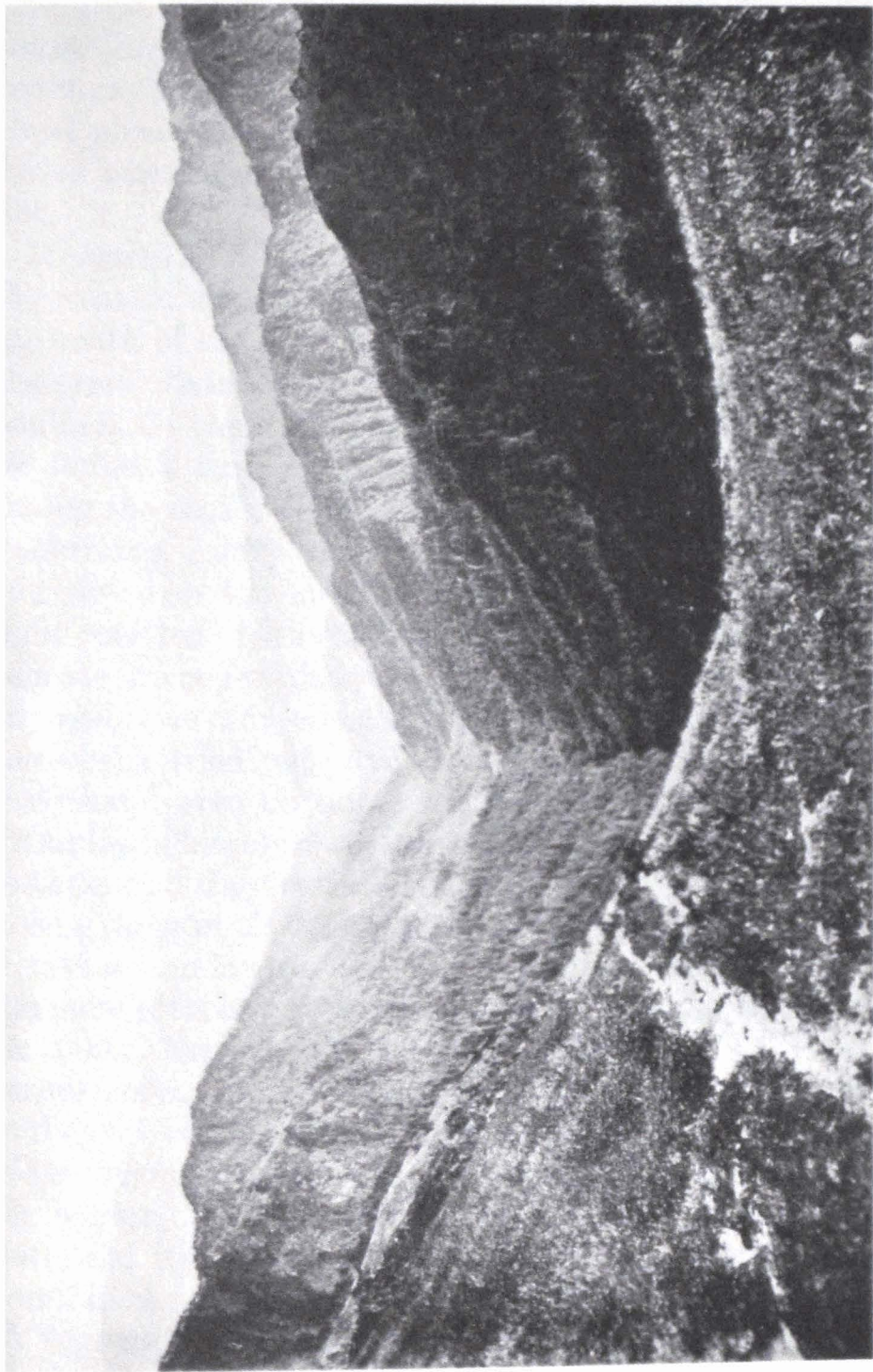
By this time the big Rhododendrons were in their full glory, standing out like sentinels on the path of some god of the hills. They were magnificent in their majesty of form and richness of colouring, as different from the ordinary Rhododendron in England as a guardsman in

full dress is from a street-urchin. There was no flaunting of cheap wares about them; they were far above that, and our admiration was filled with respect. The sentinels by the path consisted of *R. arizelum* and *R. basilicum*, together with what was obviously a natural hybrid between the two, while keeping to itself in the offing was still a third species, *R. sidereum* (F. 872), with long, narrow leaves, silver-white beneath, that hung down in a despondent fashion. The trusses of creamy-white flowers, standing up jauntily on the top of every branch, made up for this air of gloom. Every plant appeared to be sick, which was, perhaps, some explanation of its peculiar appearance; but it thrives in this country, and, doubtless, will become popular in time owing to its uncommon appearance. It is the greyest looking of all Rhododendrons, with the cold green and white of its leaves. Above the largest patch of *Primula sonchifolia*, now, alas! over, was a magnificent tree of *R. fulvum*, another old find of Forrest's, and one of the best of all species with its graceful leaves russet-felted below and soft-rose flowers. We found it again in the Chimili, but never in such fine condition as this solitary specimen, shapely and symmetrical and looking at a distance like a salmon-coloured umbrella.

The weather continued to play with us, and we woke to a drizzle and a dense mist. We started off to explore the frontier ridge to the north of the pass. This was our first, and worst, experience of the dwarf Bamboo. The ridge for the first few miles is low, only a hundred or so feet higher than the pass. It is formed of gigantic boulders, and the Bamboo usually fills every cleft and cranny between them, in addition, of course, to all the lower slopes. I feel venomous against this useful but most annoying plant when I think of the discomfort it gave us. It plagued us in every way. It soaked us; it

stabbed our legs whenever it was cut; it caught our clothing at every step. If we stood on a cut stem our feet would slide from under us, when we would clutch the stems by the pathside and get an involuntary shower-bath in a wild effort to keep ourselves from falling. Farrer began by ignoring the foot-wide path that was being cut in front of us. He searched for plants on either side, but the jagged stabs on his calves soon damped even his enthusiasm. It was amazing that there were plants to find in that maze of Bamboo; but plants there were, wherever they could get a foothold. The only solitary growing Rhododendron that could cope with the Bamboo was the marvellous *R. æmulorum* (F. 815). The entire Burmese side north of the pass was studded with it, rising squat and sturdy out of a sea of Bamboo. It was particularly uniform in size, always about 16 feet in height with a shiny bronzed trunk and ovate leaves 6 inches in length and 4 in width, covered on the undersurface with a rich and thick reddy-brown felt. The flowers were of the deepest and most luminous scarlet imaginable, giving out a glow of hidden light even on the darkest day. The texture of the petals was firm and waxy, so much so as to be impervious to rain or sleet. Out on that hillside, with its top above the sea of green, it has to bear the brunt of every wind that blows. It is certainly a hardy plant, if quick growth is not encouraged, and seedlings are doing so well that I have hopes of its succeeding admirably in this country.

Bhaju and two coolies hacked a way through the Bamboo while we followed slowly after them, passing these red lighthouses looming through the mist. It was still too early for the high tops. A washy yellow Fritillary was coming into bloom on the edge of the Bamboo, as was a typical lilac-coloured nivalid Primula, but that was all. We wandered along for several miles



CHINA FROM THE IPIMAW PASS

before turning, and then clambered home over the boulders of the actual ridge. We stepped on a covey of blood pheasants, and I shot three; they were about the size of partridges with red and grey plumage and scarlet feet.

It poured in deluges during the night, but by daybreak the weather cleared. This day we gave to the *arête* on the south of the pass. The formation here was exactly the same: Bamboo to within a few yards of the heaped boulders on the actual ridge. But we were luckier, as we found a tiny Takin track that wound in and out among the rocks. Almost at once we found a *Primula*, a charming, dainty morsel that clung to the boulder sides and rioted in the moss on their tops. From the tiny tight rosettes of leaves rose large flowers of the most delicate lavender-lilac. Alas! *Primula moscophora* is impossible in our climate, like all the teenies. They have been tried over and over again with no success. Not that I give up hope; for success and failure with *Primulas* is largely a matter of coddling. Be too kind to them and they will do nothing. I should like to try raising them in this fashion: Find an old slate and cover it with a thin layer of the finest moss you can get. Let the moss attach itself to the slate, then sprinkle the seed on it and keep it in heat until there is some sign of germination. At once place slate, moss, and seedlings as they are in the coldest and shadiest frame you possess. Water them in the growing season and keep dry during the winter. If they survive this treatment, place the slate and its covering near water, either a stream or pond, in the coldest and shadiest position at an angle of 45 degrees, and hope for the best. There is no doubt that pot treatment is useless for many *Primulas*; they also resent moving, which the use of slate and moss obviates.

A little further on we came upon another *Primula* (F. 881), so precocious as to have almost passed out of bloom even in those early days when the heights were hardly awake. Here I quote Farrer from the *Gardeners' Chronicle* :

“Deep in the shade of the Bamboo and Rhododendron forest deep and damp little rocky gullies sink steeply down from the *arrête* on both the Chinese and the Burmese sides; and here, in the dark and damp mossy walls, occurs a *Primula* of very odd appearance and habits. Readers may picture it roughly as a miniature of *P. sinensis*, with 3-inch scapes and umbels of fringed, pure white flowers, very rarely indeed tinged or backed with palest lilac-pink. At flowering time all the leaves of the rosette are obovate and drawn down to the base in a diminishing winged petiole. But after flowering, as the seed scapes fatten, the plant sends up, round, and over them, a new set of leaves, bare-stalked, cordate, and sharply dentate-lobed, as completely at variance with the first set as is the foliage of *P. mollis* with that of *P. acaulis*.”

Close by we came upon a most aristocratic-looking little Rhododendron growing alone among thin Bamboo. This was *R. sperabile* (F. 888). Although it is a relative of *R. hæmatodes*, it is not squat like its cousin, but grows like a miniature tree, perfect in proportion. The young foliage is as fleecy as can be, while the flowers are more tubular than those of *R. hæmatodes*, and of an even richer and more vivid crimson. It has already flowered in this country, and is universally admired.

We clambered on along the crest and found promise of plants in the future, among them a *Diapensia* and a *Meconopsis*, which turned out to be a form of old *M. Wallichii*, and a poor one at that, with flowers of a dirty plum colour. But here again we were too early.

We ate our piece on a rock at the top of a gully where the reddy-brown snouts of a *Rodgersia* were pushing their way through the ground and then climbed on to the ridge, where the monotony was broken by seeing a wild sheep cavorting away over the boulders.

There we sat with China in front of us and Burma behind. Range after range spread to the horizon. Odd they were, too: for in all that tangle of hills there was not a single dominating peak to break their geometrical lines. Even Imaw Bum, which had looked a giant from the fort, deployed along the sky-line in a long, untidy ridge that entirely spoilt its massive appearance. In fact, the valleys were much more grand and inspiring than the hills. We looked downwards into a blue haze that increased their depth; also we could never see more than a yard or two of their bottoms, so a good deal was left to our imagination. Below us a gully led straight down to the Salween, of which we could see a tiny silver streak disappearing round a bend. The lower slopes were heavily cultivated, and were like a gigantic chequer board. Beyond was the Mekong-Salween divide; then faint ribbons of other ranges faded into the dim, smoky distance. This part of the world consists of folds: in the hollows run the M'li hka, the N'mai hka, the Salween, and the Mekong, which all rise in Tibet, or on its borders, and flow south. It is, perhaps, just the monotony of the ridges that gives the wonderful variations of light and shade in the valleys, a variation that is increased by the thunder showers that are for ever brewing among some part or other of the hills. Indeed, it is the colours that count, since the constant stream of horizontal lines is unbroken either by Nature or by the little excrescences of buildings that the Chinese are fond of putting up in so many advantageous positions.

It was on this ridge that we first noticed the extraordinary change in vegetation caused by the monsoon. The Burmese side that faced the south-west monsoon was a clogged mass of tree and Bamboo. The moment we popped over the ridge half of the Bamboo was displaced by broad sweeps of *Berberis Wallichianum*, a plant that we never saw on the Burmese side, while lower down were groves of a Hemlock-spruce and of *Pinus Armandii*, of which there was only an occasional specimen where the monsoon struck. On the other side of the Salween we could see open slopes studded with low shrubs and no jungle. Still further over the Mekong valley is actually arid; and yet as the crow flies I suppose that Hpimaw village is about fifty miles from the Mekong. The average rainfall drops from around 120 inches to under 30 in that distance; and this is entirely owing to the monsoon being broken on the frontier range.

On our way back on the Chinese side we found yet another new Rhododendron, *R. phœnicodum* (F. 877), a larger edition of *R. sperabile*, but instead of the wool it had a glistening white undersurface, though with the same rich, waxy, crimson flowers. Here also we saw a miracle, for every branch of every tree was festooned and clothed with a white Cœlogyne that could have been no other than *C. cristata*. Long drooping racemes of the most crystalline whiteness flowed over every foot of bark and lit up the shadows. Yet here we were at 11,000 feet on a slope that was windswept the year through and mantled in snow from December to April. Apparently it will *not* grow outside in our gardens, though why this should be only the gods know. Far down in the forest we noted one tree of *R. habrotrichum*, which has been in cultivation for a number of years, and is counted a poor thing. It was anything

but that, at least as we saw it, a pyramid smothered in soft rose-coloured blossom.

On the next day we clambered down again to Hpimaw very well pleased with the prospects for the summer. We considered ourselves lucky at already having found several Rhododendrons, and they were bursting around us overnight; even on the way down we came upon something fresh, a bush of 8 to 12 feet covered with flowers similar in shape to those of *R. ponticum* and varying in colour from the true ponticum shade to a lavender-blue, but not as good as the best forms of *R. Augustinii* that we possess. This is *R. zaleucum*.

That country was like Wonderland, with ourselves as two overgrown Alices. Flowers came out as we looked at them. A dull plant of the evening before would be radiant the next morning, and radiant not with buds just expanding, but with blooms in their full glory. Actually the reason is not miraculous; it is merely that the hot season is so sudden and so short that plant life that prefers blossoming before the rains knows that there is no time to waste and hustles with a speed that is unknown in more temperate climes. We were certainly startled by the extraordinary rapidity both of growth and blossom. The desire to grow and the haste with which it is accomplished are still imprinted on my memory with extraordinary vividness.

We discovered a new magnolia-like tree from our verandah one morning a few days later. It was a noble evergreen about 30 feet in height with glossy dark-green leaves, which we had noticed vaguely before and wondered if it produced anything that could be called a flower. And here it was pushing a long purple bud under our noses, a bud that graced the point of every twig and opened into a glorious salmon-pink chalice. The petals never expanded to the extent of the usual

platter-shaped Magnolia, but held their graceful curve until they withered. This was *Manglictia insignis* (F. 903), a near relative of the Magnolia, and a plant to dream about. Seed was collected and actually germinated, but so far it has proved tender even in the south. It is a pity, for its colour scheme is like that of *Camellia reticulata*, but without its annoying habit of letting its flowers flop and fall at the earliest opportunity.

We had an added excitement that day. After lunch Suriman and the Subhadar asked us to attend a religious festival, which we politely declined. We never found out what it was, or, indeed, what religion it had to do with, for Suriman's English consisted of manufactured sentences rolled off his tongue as one word, and his explanation meant nothing. As far as we could make out, the festival was arranged by the Subhadar's wife, who was supposed to be a variety of Christian. Whatever it was, it must have been a queer sect, since the ceremony lasted from six in the evening until four the next morning, and was kept up with an incessant caterwauling to an accompaniment of taps on a wooden board, exactly as if a cook were chopping up a thousand hard-boiled eggs. Apart from the din that kept us wide awake, it must have been a respectable performance, as the Dragon turned up the next morning his usual self, a most uncommon condition with him after a convivial evening.



LILIAM BROWNII VAR. COLCHESTRI

CHAPTER III

EXPLORING

THE next few days were spent in preparing for the Chimili, a valley on the frontier about forty miles to the north. Farrer finished off the advanced specimens for despatch to Edinburgh and collected the few seeds that were already ripe, while I visited the village with Bhaju and chattered for rice for the staff. The storekeeper, who was a Chinaman, squatted in the road with Bhaju. They haggled away to their hearts' content, while I made friends with Mrs. Chinaman, who was affable but coy—her coyness taking the form of a terrific squint that enlarged as she lowered her eyes. From her I bought a few walnuts and a copper jug. This was simple bargaining, since my Chinese was insufficient for the intricacies of a regulation haggle, such as is beloved throughout the East. She held up so many fingers and I halved the amount. She was satisfied, and so was I. Neither Farrer nor I had the patience of an Eastern bargain-hunter; we lost interest before they had properly started.

We awoke in a mist on the morning of our start. This soon cleared away, and the day turned out to be hot and cloudless with a shimmering haze reaching up to the heavens. We marched off in front of the coolies with Bhaju and the Dragon. Down the road we went to Hpimaw village, already in its noonday sleep, and along the side of the little plain, where a few men were busy ploughing. About a mile from Blackrock we turned off the main road and clambered over a small divide

covered with oak and alder coppice. We might have been in an English countryside with a dry sandy soil, out of which perked a little sweet-scented *Pyrola* and Bracken and Bramble, until we met a Lissu maiden decked in her finery and studded with pounds of cowrie shells. Then the spell was broken. She eyed us like a frightened deer and leapt away like a Dryad when I turned the camera on her. Below us we saw the Ngaw Chang through the trees with a cliff on the far side one sheet of *Dendrobiums* of all colours in full blaze. The path debouched on a plain the flattest and largest that we had seen, and the road meandered among the remains of paddy fields, for some reason or another long neglected and now a waving sea of hay and weeds. Here we were down again in that odd belt of Mediterranean dryness that exists at about 5,000 feet with not a Bamboo nor a *Rhododendron*; their place was taken by Oak and Pine and Alder, while the side of the path was lined with Peaches and Apricots which had sprung up from seeds thrown away years before by wandering Chinese. Although these open spaces were a pleasant change from the interminable forest of the hillsides, yet there was little to interest us in the way of plants. There was a climber like a *Wistaria* that overhung several of the narrow gullies with long tails massed with lilac flowers deliciously fragrant, and down by the Ngaw Chang were colonies of *R. indicum*. There was also a *Hoya* with scarlet tubes, a wild Ginger of no importance, and a pretty *Indigofera*, but no better than the *I. Gerardiana* of our gardens. Along the side of this valley the path wandered with its usual serpentine twists. We were hot and dry and dusty, and flew at a noble-looking Bramble with luscious-looking scarlet fruits the size of half a crown, only to find that they were hollow and insipid, and a fraud and a delusion.

Our first march was to Tang Tung, a ramshackle bamboo hut above a Lashi village. This hut was used so seldom that we found it inhabited by the local headman's cow; so we sat outside in the sun on a great flat boulder over which sprawled a little yellow Tomato, and waited for our caravan. This turned up an hour later with the usual story of weak-kneed Hpimaw coolies. Some had even refused to work at the bottom of the hill; so all in sight had been pressed into service. Four were no older than twelve years, and came staggering in under their 60-pound loads. We rebelled at this child labour, and on the local headman promising substitutes sent them off home. Suriman brought up the rear, carrying a cargo of liquor inside and out; still he managed to cook our dinner, and then sang himself to sleep. One of Clerk's policemen arrived while we sat outside the hut in the cool bearing a varied assortment of a letter, a map, a bottle of lime-juice, a bag of new potatoes, and a packet of quinine, the last to dole out on our journey, as it had been reported that influenza had broken out among the villagers along the Ngaw Chang.

The next day's stage was short, with the road still skirting the valley and the hills gradually closing in. Luckily the monotony was lessened by large clumps of *Lilium Brownii* var. *Colchesteri*, which E. H. Wilson describes as the common trumpet Lily of China. It is certainly the glory of this hot, dry valley, where it is the only plant that savours of a temperate climate; everything else is a member of some such tropical family as Gesneriaceæ or Zingiberaceæ or Asclepiadaceæ. But this Lily raises its snowy trumpets, pencilled with carmine, out of the Bracken, and looks cool and stately. As we saw it, it was really superb against the monotonous green background of Fern and Alder. Wilson says that

it is found in at least eighteen provinces of China, and the situation in which we found it certainly corresponds with that which he describes. As Farrer said, its great drawback is its scent, which is not only overpowering, but both sickly and sickening. Every stem held at least three or four perfect trumpets; in fact, so uniform were they in shape and size that I have an idea that we grow our trumpet lilies in a wrong fashion. Of those that I have seen in the wild, every one had its stem completely shaded by Bracken or some low shrub with which they grew in perfect harmony. Their flowers perked over the top and looked all the more lovely for doing so, since the gawky stem was hidden by the surrounding herbage.

Towards Kangfang the road became much more beautiful with the hills above the valley of the Ngaw Chang closing in and ultimately ending in magnificent gorges that swept away into the hazy distance. On the right appeared a jungle valley up which lay our road on the morrow with one of the peaks that guard the Chimili at the head of it, much bolder than anything we had yet seen, and still covered with its winter snow-cap, and this in the middle of May.

At Kangfang the bungalow lies on a small spur that juts out between the Ngaw Chang and the stream that runs down from the Chimili. Kangfang is also the dividing-line between country that is thoroughly administered by Clerk from Htawgaw and the northern reaches of the Ngaw Chang, which are not only sparsely inhabited, but are left entirely to themselves owing to their natural difficulties. With the exception of surveyors and of Kingdon Ward, I have heard of no one except an odd native ever having crossed from the Akhyang valley, where Farrer spent the next year, over the Nyetmaw Pass and down on to the Ngaw Chang. Kingdon Ward describes it as bad country with a



THE AKIWA'S COUSIN AND ONE
OF HIS WIVES



A LISSU MAID IN HER FULL FINERY

terrible path winding over interminable ridges where, oddly enough, he had great difficulty in getting water. The reason for this is that the slopes are so steep and the soil covering so thin that even with the heavy rainfall the water runs off the hillsides not on the top, but under the soil on the rock face, with the consequent absence of springs except in the valley bottoms. As the native tracks keep to the ridges as much as possible, there is a consequent scarcity of water. The only means of crossing from the wild upper reaches of the Ngaw Chang to the more sophisticated lower valley is by means of a bamboo bridge at Kangfang, one of those simple but perilous devices that every traveller in north-west Yunnan has described. It is V-shaped with a solitary strand of bamboo rope for your feet and one on each side, breast high, which you clutch feverishly while you place your feet with the utmost care on the main rope. They are bad enough when the streams are low, but are a million times worse in a spate, as they sag horribly in the middle and are often only a foot above the curdled water.

Over this bridge are carried the remnants of what must at one time have been a great trade, and what even now must be one of the most odd exports in the world. These are planks from the Coffin Juniper. This is no ordinary Juniper, and these are no ordinary planks. It appears that many years ago a species of Juniper was common throughout all these hills. In the course of time, the Chinaman found that the timber of this tree was not only far sweeter scented than that of any other tree, but that it also took lacquer better than any other wood. The Chinaman is noted for his filial piety, which takes, among other things, the form of providing magnificent coffins for his parents and grandparents. With their ingenuity they found that nothing could equal

a plank of the Coffin Juniper for making coffin-lids, and so these trees were felled and planks 7 feet long, 4 feet wide, and 4 inches thick were hewn from them and shipped to Tali fu and Yunnanfu, and from there to the Yangtze and the richer parts of the country. Perhaps centuries ago it existed in large forests in Yunnan, but, like many another valuable tree, it has disappeared entirely from areas easy of access. Now it only exists in unapproachable valleys in the neighbourhood of the Nyetmaw Pass, and soon, no doubt, will become extinct even in the wilds. The felling and hewing is left entirely to the Lissu inhabitants. Their only tool is a native adze, so the wastage must be enormous. All through the colder months we constantly met coolies laden with their fragrant burden creeping up the steep hill past Hpimaw Fort and so over into China. When we were there, Chinamen in Tengyueh were paying no less than £70 for each plank, which must make it one of the most valuable timbers in the world, if not the most valuable.

It is doubtful if even Kingdon Ward has seen a full-sized specimen. It must be one of the greatest of all trees. We saw but two, a seedling 30 feet high and a foot in diameter, and the burnt-out stump of a giant, in which three of us took shelter from a shower. This was 7 feet in interior diameter 6 feet above the ground. I should say that trees nearer 300 than 200 feet in height must still be living. We had heard so much about it as an economic product that we were amazed at the beauty of even the quarter-grown specimen that we found; a tall and slender bole with thick grey bark, neither scaly like the Pines nor stringy like the Redwoods, and from every shapely branch flowed a waterfall of blue-grey foliage. Every branch and every leaf bowed earthwards, giving it an extraordinary

appearance of delicacy and grace. Seed that we sent home has germinated, and these seedlings have in turn been propagated with ease by cuttings, so the stock in this country is rapidly increasing. It is perfectly hardy. Happily it shows its true form even as a tiny seedling, with most graceful branchlets and foliage. It has an added advantage in that it is not nearly so sluggish in growth as many of the new Chinese Conifers. In time it should become a valuable timber tree, particularly as a wood for pencil-making.

At Kangfang hut we had for the first time a view with perpendicular lines in the foreground, with the Ngaw Chang stretching northwards through a deep gorge. Never have I seen such a contrast between the golden-flecked clouds of the sunset and the sombre purple of the gorge; it was quite indescribable. Our next stage followed the tributary of the Ngaw Chang, and was much more interesting, for the chine, although heavily wooded, was also full of boulders which prevented the devastating rankness of vegetation so common around Hpimaw. Here it was more homely once we had climbed out of the region of giant Bracken and Arizæmas. The entire bank was covered with a florid-looking *Philadelphus*, that turned out to be none other than a close cousin of the old *P. coronarius*, with straight stems laden with honey-scented flowers of the snowiest white. Then in the cooler and damper stretches, where the bank was overhung with jungle, and water dripped on to the path, the earthy sides were sprinkled with a fine *Gesnerad* whose violet flowers stood out from their tufts of stiff leaves exactly like those of *Ramondia pyrenaica*. The path followed the wooded banks of this rippling beck, where the Hpimaw *Deutzia*, much more luxuriant in this shady coppice than at Hpimaw, and *R. bullatum* clustered around the big boulders. We were

puzzled for a mile or two by what appeared to be a floppy tropical climber, as usual on the far bank where the stream had cut an impassable chasm; then suddenly on a little flat, where the stream formed numerous channels and tiny bush-clad islands, we saw it at close range and found that it was yet another *Rhododendron*. This was *R. megacalyx* (F. 918). It is always a floppy-looking bush with straggly branches, but this is more than set off by its fat, waxy flowers carried four or five in a loose truss. Its leaves are heavily veined, as in all the *Maddeni* series, to which it belongs. The calyx is large and so are the flowers, and of a most peculiar shape, more like a *Gloxinia* than a *Rhododendron*, so much longer are the lower petals than the upper, which gives it a prognathous appearance. The colour is pure white, faintly flushed with pink on the outside towards the base. Add to this a fragrance of cloves stronger and sweeter than that of any *R. ciliicalyx*, and you can imagine our joy at finding this exotic-looking beauty. This, and our *Hpimaw Decorum*, thrived in greater variations of altitudes than any other plant we found, since they both followed the banks of this stream from about 7,000 to nearly 10,000 feet. Unfortunately this *Maddeni* is proving stubborn in cultivation. If it does not succeed outside, try it in, for it is certainly fine enough. It is unlikely that it will grow out of hand, as we never found a bush exceeding 8 feet. The only other interesting plant on this coppiced level was a fine *Jasmine* that clung to many of the spindly trees—a *Jasmine* with pink buds and deliciously scented white flowers as big as a shilling; oddly enough, this has proved to be quite hardy, and is already 6 feet high on a wall in my garden, although it has not flowered so far.

This is a good example of the gamble that exists in the introduction of every new plant. Why should this

Jasmine grow merrily with me, making strong growths every year and not turning a hair at 18 degrees of frost, and yet Rhododendron F. 918 from the same shingly dell refuse to respond to similar conditions? It is not as if the Jasmine flourished at every elevation; indeed, it did not. It was even more localized than any Rhododendron. If the Jasmine is more accommodating, as is apparently the case, you would imagine that it would be widespread in those hills, which it is not. This paradoxical state of affairs occurs in plants from all over the world, but it is nowhere so common as in the flora of Upper Burma. Another and perhaps more striking example is the *Deutzia* from the beck below Hpimaw. It is never seen above 5,000 feet at Hpimaw growing in an area where the Banana will ripen, and from which crops of Rice are taken every year. And yet this not only grows, but flourishes on the east coast of Scotland, while dozens of plants from infinitely higher altitudes are as stubborn as mules. Why is it? Some say that these plants from great elevations like a wet summer and a dry winter; that may be a partial explanation, but it is not sufficient. If the climatic factor were everything, it would surely be logical to say that, if one plant from a given area could flourish in a different climatic environment, all plants in its close proximity would do likewise; a statement that is absolutely untrue. This is a conundrum that no botanist has been able to solve.

Beyond the level the path began to climb, and gradually it drew away from the stream, which rushed down a rocky funnel. Again the extraordinary waves of vegetation were noticeable. We left the coppiced levels of the damp chine and were now in a drier area with Alder and Bracken, from which were peering the great fat stems of *Lilium giganteum*. Then we climbed above the dry

level and the Bracken, in place of which were tangles of a white-stemmed *Rubus* and slopes covered with Edelweiss and two *Smilacinas*, one a white-racemed handsome creature that was far from common, the other a dowdy thing with little squinny stars of brownish-green. On we plodded round elbow after elbow of the spurs, until suddenly our first alpine valley appeared in front of us, a little hummocky plain two miles long and a mile wide, in which squatted dozens of Lissu crofts. Every inch was tilled, but, instead of the Rice of the lower valleys, the crops were Millet, Buckwheat, Maize, or Potatoes.

The valley was entirely girt in by hills, obviously higher than those at Hpimaw, for most of them were still asleep under their winter snow. Steep though they were, they did not rush down in one terrific slope from alpine conditions to the tropics. It was the most livable and likable place that we had seen. There was nothing pseudo-tropical about the vegetation like that of Hpimaw, where, right up to the last day, we had grave doubts as to the advisability of collecting seed of each and every plant lest it should prove tender. Here we were back among friends of known and proved worth, *Alliums*, *Saxifrages*, *Campanulas*, *Rosa sericea*. Weeds many of them were; but we knew them and their capabilities, and gave a sigh of relief in consequence. I should say that Hpimaw, on the whole, gave us the more striking flora, but its beauty had always an exotic tinge that left us a trifle uneasy.

No sooner were we settled in the little hut that sufficed Clerk for his annual visit to the valley of Sabiya-Kaw, than we were visited by the Akiwa. Here again we felt at home; for he proved to be a typical hillman, tall, broad-shouldered, and handsome, perfectly mannered, and always with a smile on his face. Love of the hills is a

common bond that no language difficulties can separate. He smiled, and we smiled, and we were soon firm friends. He brought with him a gift of two fowls and some eggs, the first time that a native had so honoured us, and, in turn, was presented with two tin cups, with which he was delighted. Later on he brought his two wives to be presented to us, and promised every assistance that lay in his power.

The Lissus are very different from all other tribes in Upper Burma. They are attractive; the others are not. They are easy to deal with; the others are difficult. They take an interest in what you are doing and never grumble however hard the work may be; the others are dour, and are confirmed grumblers. In fact, the Lissus compare very favourably with other hillmen throughout the world. They have a good reputation for being trustworthy and cheerful in adversity. They certainly find it difficult to make a livelihood, as the soil in these upland valleys is thin and the climate bad. They are miserably poor, and one seldom sees them dressed in anything except the universal blue cotton of lowland China. Those that we saw certainly bore out their reputation. We never heard a grumble and never saw a quarrel. They are excellent mountaineers, which is only natural, and are keen and skilled hunters, using a crossbow and bamboo arrows with a neatly folded strip of bamboo in place of feathering. Their hunting bows are about 2 feet across and $2\frac{1}{2}$ feet long with cording made out of a native hemp. The wood is extremely tough and practically everlasting; unfortunately we never learnt from what tree it came. Indeed, this bow, for its small size, is a most powerful weapon. For Takin and bigger mammals they use a vegetable poison on their arrows that circulates slowly through the veins and ultimately causes death, although it does not spoil

the meat. We were told that the war bows were 6 feet across, but we never came across one. I cannot imagine how these were stretched, since it takes me all my time to stretch an ordinary hunting bow.

Poorly though they are dressed, yet they wear their clothes more gracefully than do other tribes. This is particularly noticeable in the women, who are obviously the Parisians of the hills. Their turbans are often set at a rakish angle, while the workmanship of the various garments is more finished in appearance. Parti-coloured coats are commoner. Although the men wear no ornaments, the women embroider with great skill and make intricate designs. Red and white thread is used with dark blue, and blue when embroidering fawn or white. The result is both effective and pleasant, however simple the designs may be. The blue skirts often have two panels of white cotton, one on either hip. They invariably wind round their middle a wide belt, of striped cloth for ordinary wear and a belt loaded with cowrie shells for full dress occasions. They are fond of ornaments and cover themselves with string upon string of beads or ropes of cowrie shells. They usually have large circles of copper or silver wire in their ears and bangles of the same material on their arms.

Many of the younger women are as good-looking as the men, while some of the girls are actually beautiful. There are two branches of the tribe, the White and the Black Lissu. The white, luckily, are by far the largest branch, and inhabit a long stretch on the Burmese side of the frontier, as well as some large areas in North-West Yunnan. Some of them are quite pale in colour, and in most of them, although traces of the Mongol type are present, the wide cheek-bones are not prominent, while the features are good and clean-cut.

Their language is particularly guttural, with something



CLEMATIS 'SPOONEE'

approaching the Zulu clicks; it is certainly unlike that spoken by any of the neighbouring tribes. They do not mix much with their neighbours, and so are accounted snobbish. Their language is laughed at. Here is the story of the origin of the Lissu tongue, as recounted by the Lashis and Marus:

There was once a beautiful Lissu maiden who was a minx. She had four lovers and thereby exceeded the quota, since each of them thought that he was her only swain. The four of them were ordered off on a journey by the chief; so each went to her for a parting caress and was given a portion of fowl to eat by the wayside. When they stopped for their meal, one of them noticed that the portions of fowl fitted together in a remarkable fashion, and they began to exchange confidences. Then their love turned to wrath, and they drew lots to decide which of them should return and slay the faithless one. He who was chosen started off; but, luckily, the lovely lady noticed him from afar and, being of a suspicious nature—or, perhaps, having a guilty conscience—scrambled up a tall tree. From this point of vantage she started to bargain with the man, and her blandishments were such that she soon persuaded him that he was her one and only love. Down she climbed off her perch. She suggested that in order to seal the peace he should put out his tongue for her to kiss, which the silly fellow did. She promptly bit it off as a punishment for indulging in such tittle-tattle. Their descendants are the Lissus with the guttural tongue.

There is, however, another side to this attractive picture of the Lissus. If the White Lissus are white, the Black Lissus are very, very black. They live in a small area in the Salween valley nearly opposite the Chimili valley. The only white men who have been through their entire country and survived are Forrest

and Litton, who was once British Consul at Tengyueh. This was a number of years ago. The Black Lissus' trade, hobby, and pastime is apparently murder—if possible strangers; if not, each other. Oddly enough, they consider shedding blood in open fight a silly, useless crime, but hidden murder a brave deed. Forrest has described to me how he once saw a fight between two villages. The Black Lissus live on the big spurs that drop down to the Salween and the ground between the spurs is kept as a no-man's land. He saw them approach each other in skirmishing order, letting fly volleys of arrows. When they were so close that one warrior was knocked over by a spent arrow, the fight was over, and they retired. On the other hand, waiting in ambush behind a tree for anyone who might pass is a deadly business, and is considered to be an act of the greatest bravery. Needless to say, Forrest and Litton were well armed when they went through, but it was only by exercising the greatest care that they reached the other end in safety. Two Germans following them a month or two afterwards were never seen again.

Our friends are vague about their origin. But whatever they might have been, it is obvious from their freedom of action and length of limb that they have always been dwellers among the hills. They live in these upland valleys not from force of circumstance, but because they love high places. Variations in language mean little in that part of the world, since they are so isolated, one tribe from another, by difficulties of communication, that there is very little tribal intercourse. They have never learnt to travel, even in these days of Government roads. It requires a genius in languages to trace the roots of the various tongues, and a complete ethnological survey is necessary before the conundrum of the origin of the various tribes can be solved.

Our caravan stumbled in very late and very weary; and little wonder, for the last stiff pull up must have taxed the poor physique of the coolies from the lower valley. We sat down to a peaceful meal with a cool, fresh breeze blowing off the snow, and then strolled up the valley in the twilight and back again with the moon lighting up slope after slope of the hills. Everywhere we were met with smiling faces—such a difference to the usual dourness.

The next day was glorious, with a sharp tang to the air, and, true to his promise, the Akiwa produced his coolies on time—fine strapping men who never lagged behind. We set off immediately, and soon began to climb. The track wound alongside our stream of yesterday, here a little foaming torrent with waterfalls and deep pools. In place of the sticky forest of Hpimaw the woods were real woods with acres of the floor carpeted with a little wood Anemone, nothing wonderful in appearance, but a sign that we had left the tangled jungle of the rain forest. In a particularly dense patch we found some withered *Rhododendron* flowers on the path, and there, at the top of the high canopy, we could just see the giant leaves of *R. sino-grande*. Although spindly in trunk owing to their hurry to get to the light, they were all over 30 feet high, so down one had to come. There they were, rosettes of enormous leaves, 2 feet in length and a foot wide in young trees, 16 inches by 8 in full-grown specimens, great platters of wrinkled green which had to be doubled up in order to get them into our drying presses. The foliage was far tighter and more rosetted than one would imagine from seeing the 7-foot seedlings in this country. Whether this varies according to the density of the shade or the amount of rainfall remains to be seen. Except for the size of the individual leaf, it is by no manner of means a striking plant.

By this time we were well above the torrent and still had a long scramble before we reached Clerk's jungle clearing, the last camp within easy reach of the pass. We looked back straight over the road by which we had come over the Sabiya Kaw valley to Imaw Bum with a black storm-cloud circling its crest. In front of us lay the Chimili valley with mountains closing in on it, much more rugged and grand than anything we had yet seen. The bed of the valley was filled with Spruce and Tsuga and Larch, with a small band of Bamboo on the lower slopes topped by gaunt cliffs and, finally, bare brown patches that could be nothing else than alpine lawns still in their dank and sere winter garb. This time we had not mistaken Bamboo for grassy meadows. Lovely though the camp was, we found to our sorrow that it was the home and hunting ground of millions of midges. I have seen them thick at Loch Maree, where they make fishing a burden on a sultry evening, but nowhere so venomous or in such myriads as in the Chimili jungle camp. As soon as the sun went down, they appeared in battalions, then in armies, and finally in clouds. We battled with them with whisks and smoke and paraffin, but to no account, so we donned pyjamas and sat in our chairs like martyrs offered up in a holocaust, while the staff built a circle of fire around us. There we closed our eyes and suffered in silence until the cold night air drove them off, and we were rescued.

Farrer and Bhaju started off early the next day for the Chimili Pass up a path that declined the assistance of ridges or gullies. Instead, it ran up the precipitous slope in a long series of short and sharp zigzags. In the *Gardeners' Chronicle* he wrote:

“As the wood fails the Blue Primula resumes possession in its upper reaches, but now fat and green and far



THE PORTALS OF THE CHIMILI VALLEY

on in seed; and in the wetter places are drifts of a golden *Caltha* that seems to me to be the same as the one I so well remember in China. But now the track (so to flatter it) deserts the valley and starkly climbs the mountain-side. Down in the dark depths of a ravine and on the shady mossy cushions of its rock wall, a new *Primula* flares redly purple while *P. moscophora* in sheeted masses twinkles up at you as you climb the break-leg stairway. The *Primula* will be seen at home higher up, but the gully contains other treasures in its recesses, for on its walls hang metallic-looking bronzy hassocks of a *Diapensia* (F. 932), thickly set with its lovely pure white trumpets, over which the bees hover with a zeal that I cannot attribute to any special acuteness of fragrance. But the plant is a beauty, and should give much pleasure at home—at least, to all who have facilities for establishing it in its natural conditions, for I do not fancy that it will easily be made happy in the garden. The other treasure also hugs these cool granite rock-crevices, a *Lloydia*, precisely repeating the tastes and charms of *L. alpina*, at Tien Tang and Wolvesden, save that here the delicate bells are of golden yellow, astonishingly like buds of *Narcissus bulbocodium* as they open, and light up the dark, cold walls with their gleam most inimitably, as their bright sparks seem to hover and twinkle up the deep granite.”

(This *Lloydia* was *L. Forrestii*.)

That afternoon we lazed in the warmth swathed in towels to keep off the midges. The sunset was a dream, starting on the snow-tops behind us and bathing everything in soft-rose. Slowly the lights moved across the valley, until they lit a fiery torch for a minute on the very top of Imaw Bum; then with a flicker it was dark. Bad though the climate was, yet the few halcyon days that we had were marvellous, not with the brilliance of a dry atmosphere, but with a wonderful blending of the softest of colours.

Then came the real object of the trip: to see if the valley bottom could produce a camping ground of sufficient size for a prolonged stay. The moment we left the path we found ourselves again in Bamboo. The coolies hacked a way down to the stream, which here bumped its way down a series of cascades very empty at the end of May. Our first attempt was in the direction of an overhanging cliff on the south side where the hills closed in at the entrance of the valley. It looked as if there might have been a flat there; instead there was nothing but Bamboo and rock falls at its base. There was nothing left but to make for the bed of the valley. Here we found all that we could hope for, for there was a flat expanse of several hundred acres with the brook meandering through it over shingle beds. Bamboo there certainly was, but along the bank lay little meadows and clumps of a blue-green Spruce, very aged with bonneted tops. Not a wind could touch these meadows owing to the sheltering ramparts of Bamboo and Spruce.

All round us was promise of an abundant harvest later in the year; for even at the end of May the alpine valleys were only just shaking off the effects of winter. One Rhododendron was just bursting into flower. A glamour is already cast over *R. aiolosalpinx* (F. 926), although it has not yet flowered at home. Here is a Rhododendron that varies in colour from the snowiest white or sulphur through the faintest of pinks to a rich rose. Every shade is of the purest, and all have a velvety sheen. It belongs to the *Thomsoni* series and, like *R. Thomsoni*, it has the typical orbicular leaf, but in this case it has a faint purple rim to the leaf that I have only seen elsewhere in *R. cyanocarpum*. Over the whole of the plain and far up into the gullies this beauty luxuriated on the banks of the streams, wherever it could dip its feet

into the water. A group of 8-foot bushes clustered for companionship in every possible situation, each bush laden with flowers that might have been made out of the softest wax. Imagine yards of these soft tones against a gently waving background of Bamboo of the palest green in the first lush of spring, and above them the blue-black of the gaunt Spruces; then you may get the faintest idea of what *R. aiolosalpinx* looks like.

Another charming Rhododendron also welcomed us, a neat and sturdy little shrub of 3 to 4 feet with bell-shaped flowers of translucent citron-yellow. *R. caloxanthum* (F. 937), is a typical member of the *Campylocarpum* series in leaf and flower. Its own particular charm lies in its flower-buds, of which it must be justly proud as, unlike most other Rhododendrons, it is in no hurry to open them. When they first show colour, the tone is of the clearest vermilion. The red pigment slowly fades, leaving an apricot tint that is marvellous. Finally this disappears and the citron remains, but there is always a flush of glowing fire at the base. There is not one single weak tint throughout the transformation. So vivid is the apricot, while it lasts, that *R. caloxanthum* might become a parent of a race of peach-coloured Rhododendrons.

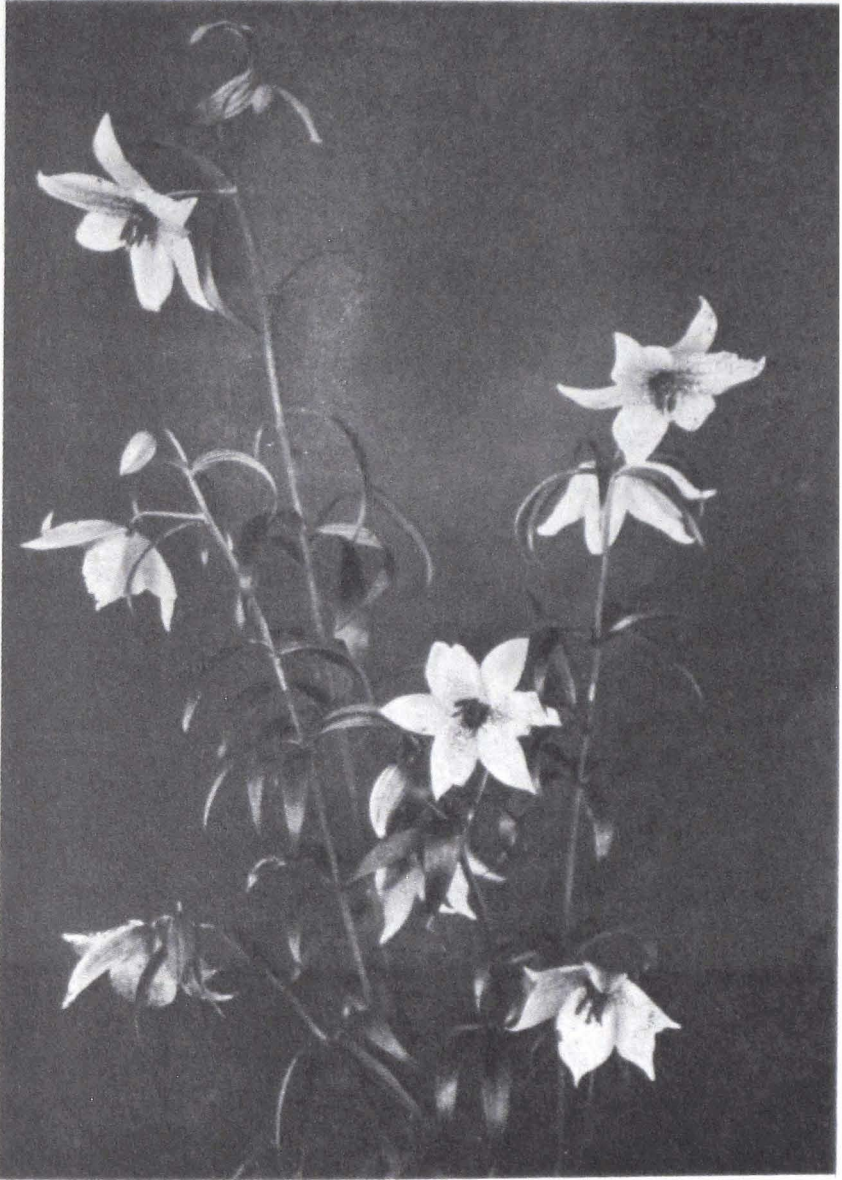
Two Primulas also delighted us; the first a typical nivalid, and a very lovely one, that thronged the lower levels of the alpine lawns, where colonies and regiments of vinous-purple heads nodded in the breeze. This was *P. calliantha*. As Farrer said, it was—

“ a mass-forming nivalid of a rich magnificence, making many-headed, almost wooded stocks, and producing four-inch stems that carried flowers of remarkable amplitude and sumptuousness, swollen in the throat and underhung in the profile, and with their widened tube clad inside in so uniform a coat of creamy powder as to

give the bloom a bland solid eye that made one think of *P. carniolica*."

Down in the little clearings by the stream it threw up immense tufts of leaves and hardly a flower, which proves that Primulas, as well as many other flowers, will become lazy if overfed. The other Primula was a delicate little being like a three-flowered Primrose with 3-inch scapes, each with two to four flowers of the softest of china-blues. The reverse was darker, while each segment had a soft-white margin. We found an occasional white form. *Primula euosma* glories in the deep shade on the edge of Bamboo brakes or the depths of mossy gullies. Like *P. sonchifolia*, of which it is a relation, it has a flat capsule with a transparent lid. For all its ethereal grace and charm, it is stubborn and refuses to germinate.

Farrer had found no such self-contained paradise even in Kansu, and we left with a great feeling of satisfaction; for here, at least, we had our alpine valley uninhabited and untouched. We stopped for a day or two at Kang Fang on our way back to Hpimaw, in order to prospect the country on the other side of the Ngaw Chang. Our first attempt was a failure, as even in that country of few tracks we took the wrong one that wound up and down above the river through terrific tangles of semi-tropical weeds. Ultimately we came upon two or three miserable huts, where we caused an immediate stampede of cows, hens, and children, and found that the track ended. On the morrow I started at six with Bhaju, a Lissu policeman, and a coolie on a vain attempt to reach the neighbourhood of the Nyetmaw Pass and return in a day. The track wound up the usual ridge and then down the other side, where the stream was bridged by a single pole. I took so long in sliding across this that I swam or forded the remaining streams that



NOMOCHARIS PARDANTHINA VAR. FARRERI

tore down every gully. After the first dip we climbed again across brackened slopes speckled with huge colonies of *Lilium giganteum* and came to a prosperous village, called Tsonma on the maps. Where do geographers get their names? Bhaju asked every inhabitant and not one had heard of Tsonma. While this inquiry was taking place, a kind old gentleman offered me some honey, which he proceeded to scoop out of hives hollowed out of logs. Lumps of brown comb were produced with his bare hands, and the bees were brushed off them. It was a thundery day and yet the bees never made a sound until I approached, when an angry hum arose at once. There was a lesson to be learnt in bee-keeping here. These were obviously the native wild bees tamed by some magical process. There was not the slightest sign of any disturbance, yet the wild Burmese bee is notoriously hostile.

Off we went again with a local guide up the worst path in the world, so overgrown that we scarcely saw daylight for an hour. The path was very rarely used, as the nearest village was three days' march away on the far side of Imaw Bum. Bhaju and the policeman were much bothered with leeches, while I felt an irritation on my chest, and found a bamboo tick, the size of a young crab, firmly clamped to my skin. The rain forest into which we had climbed was so dense and so uninteresting that we returned to Kang Fang with a most unfavourable report. With the exception of the Lily, a few Aroids, and a gigantic green and yellow *Arizæma*, I had not seen a single flower, let alone a *Rhododendron* or a *Magnolia*.

I have only three memories of the return from Kang Fang: the extraordinary beauty of the white Lily that was now fully out and turned many a patch of Bracken to a green sea with crested waves of glistening white;

the second, Farrer walking along a dusty stretch of road and stepping on a ball of newly hatched snakes. When he felt the squelch he leapt three feet into the air, the only time I have ever seen him flustered. The third memory was that of the Dragon turning up that night at Hpimaw long after dinner-time with a torn ear and a bruise the size of an egg on the side of his head. His story was that he had leaned over the bank to pick a flower and had fallen headlong. The truth was that he had stayed too long in Hpimaw village, and had staggered over the edge. He was packed off to hospital, and I started on my duties as cook.

CHAPTER IV

THE RAINS

THE moment June started the weather became curiouser and curiouser. Great black clouds rolled up every afternoon, and a deathly silence reigned. Then they disappeared like magic. Or little tornadoes leapt over the valley and blew down a few old trees or rotten branches; then silence again. We woke up in the morning in dense mist that was quickly dissipated by a blazing sun, and down the mist came again after lunch. A starlit night gave promise of settled weather; suddenly a few deep peals of thunder rolled round the hills with a wild blatter of rain for half an hour, that passed away, leaving an anæmic heaven in its wake. In this fashion does the monsoon give you warning. The weather suffers from a severe attack of colic before the rains finally settle in. It was never safe for us to go out for an hour without a coat or our blue umbrellas.

Day by day the heat became more sultry and more threatening. Luckily there were no midges or mosquitoes at the fort; but there was a pest that was nearly as bad, a blood-blister fly that no doubt owns a Latin name worthy of its sins. They look innocent enough, like small, glossy, fat house-flies with a touch of yellow on their backs. They settle on you, and, either by suction or by puncture, raise a little blood pustule that is extremely irritable. It was some time before we learnt the antidote, a prick with a needle and, a dab of iodine—a sure cure for all insect bites that I have come across.

Like the weather, we became fractious. It was between seasons, and we did not know what to do. We poked our noses into the little affairs of the fort, and tore half a mile down the hill to see the damage caused by a tree falling across the telegraph line. That the line was not broken was no marvel owing to the large sag in the middle, but it was miraculous how the tree had stood so long, as it was honeycombed through and through by shiny black wood-borers that were streaming away in dozens and hundreds when we arrived, like rats off a sinking ship. Then we heard that Hpimaw village had been burnt to the ground, so we must step off the verandah and clamber down the hill to view the ruins. On our way by the Hpimaw burn, Farrer and I were too heavy for the supports of the terraced bank and shot into the water with at least five tons of liquid mud on the top of us. The faithful Bhaju hauled us out, and we hid in maidenly seclusion in an Alder copse while our clothes were being washed, when along came the enraged owner with screams of abuse and wails for compensation. At length we arrived at the village, and found only one hut standing. We listened patiently to the woes of the Lashis, who reeled off long lists of their treasured belongings that had been burnt, belongings that they never in this life could possibly have possessed; the few Chinese, wiser in their generation, had dashed to their usual solace of the opium pipe, and by that time were sleeping it off philosophically. Clerk, who arrived two days afterwards, found them still in a state of coma, and deported them at once.

A day or two later the Dragon returned, looking wan and wobbly and very sorry for himself. That evening he came and sobbed his repentance. He was a weak morsel with no vices that we could find, and was certainly a most excellent and faithful servant. He was also

punctual with his meals, a fact that both Farrer and I appreciated.

Clerk arrived on the next day on one of his tours of inspection, when he meted out justice and gave patriarchal advice to all and sundry, ourselves included. We had much for which to thank him; for he made our path smooth and helped us in dozens of ways.

It was about time for us to visit the pass again, and the three of us started off in a stuffy drizzle that turned to a cold blast as we neared the top. Farrer and I had wandered up a part of the way a few days before, but had been rather disappointed in our finds. True we found a *Rhododendron* like *R. decorum* in full flower, its twigs bowing to the ground with their weight of large fragrant flowers of that curious translucent white one sees in *Datura suaveolens*, with a touch of yellow at the base. We had also seen *R. zaleucum* (F. 891 and 980) with its ponticum-coloured flowers fully out, which also was common at the entrance to the Chimili, nothing out of the way to look at, but the most aromatic *Rhododendron* I know, for it not only smelt when the leaves were crushed, but perfumed the air for yards around with its clean, sharp odour. I still remember this as one of the most pleasant of all aromatic smells, and I have a long memory for perfumes. Our best find on that afternoon had been a big *Enkianthus* that grew on the margin of the forest, every branch of which was tasselled with little bells of a deep bronzy-red.

During the past few days the entire flora had changed. Instead of mudbanks by the path and brown, sere patches, plants were springing up by the thousand. No doubt the short season of hot weather gives the plants the necessary impetus to start into growth, although the flowering season, except for many trees and shrubs, hardly begins before the rains. Where everything was

previously moribund, on June 13 there was a waving sea of green. A fine, creamy *Streptopus* that also grew in the Sabiya Kaw valley was in full bloom, as also was a *Rogersia*

“dominated by its solid tiered pyramids of blossom that at their worst were of a greenish pink, and at their best of a refulgent raspberry-ice rose.”

A graceful *Thalictrum* with the foliage of *T. adiantifolium*, but with pendant white chalice in place of the rather dirty-yellow tassels, skirted the edge of the path along with a perky golden *Corydalis* in such serried ranks that it might have been planted by a gardener trained at Hampton Court.

Still higher every dead branch that lined the path was smothered by two *Clematis*, one a squinny creature of no account, the other a magnified *C. montana* with larger flowers of a more glistening white even more freely borne. Botanists tell you of the close resemblance of *C. Spooneri* to *C. montana*. That may be so in the dried specimens, but is certainly not the case when alive. *C. Spooneri* is a gorgeous plant without a single blemish that we could discover. By this time *Magnolia* gully was completely clothed, and to our delight we found that *Magnolia rostrata* was as fine in foliage as in flower. The leafage is similar in shape to that of *M. macrophylla*, though a trifle larger and certainly stouter in texture. What had been trees sheeted in bloom on bare boughs earlier in the year were now shapely domes tented with this enormous foliage. As we saw it, in flower and out, it is by far the most magnificent of a wonderful genus.

Most of the *Rhododendrons* were things of the past except on the tops and already great seed-pods were forming on the arborescent species. There was, however, one that more than made up for the lack of its cousins; for

away in the depths, under a roofing of rotten branches with a fallen tree lying across this thatching, dwelt a *Rhododendron* with blood-scarlet flowers that shone like eyes out of the darkness. These magnificent blooms grew on a sickly, straggling growth, although later we found it in the valley, a fine upstanding bush. The leaves are typical of the *Irroratum* series, long and pointed, smooth above and below; the flowers, also, differ little in shape from true *Irroratum* except in size. They hang more loosely with a greater abandon on the truss. It is the colour that almost hurts. Farrer was right when he wrote in the *Gardeners' Chronicle* that the tone was

“perfectly clean and pure, but without the almost heavy bloodiness of some of the red *Arboreums* and *Barbatums*—a colour so lucent and intense that for two or three minutes after looking away from the flowers one's sight is numbed and sees everything greenish and dull.”

Although it is difficult to tell at this distance of time, I have often debated whether the intense blood-scarlets of *R. Barclayi* or of Mr. Williams's famous *Arboreum* hybrids at Caerhays are as pure. I have come to the conclusion that they are not, and that if and when F. 1022 flowers in this country, gardeners will see a red that is unexcelled. It is a red that has all the liveliness in it of the best forms of *R. neriiflorum*, together with the intensity of that of the best *Arboreum* hybrids.

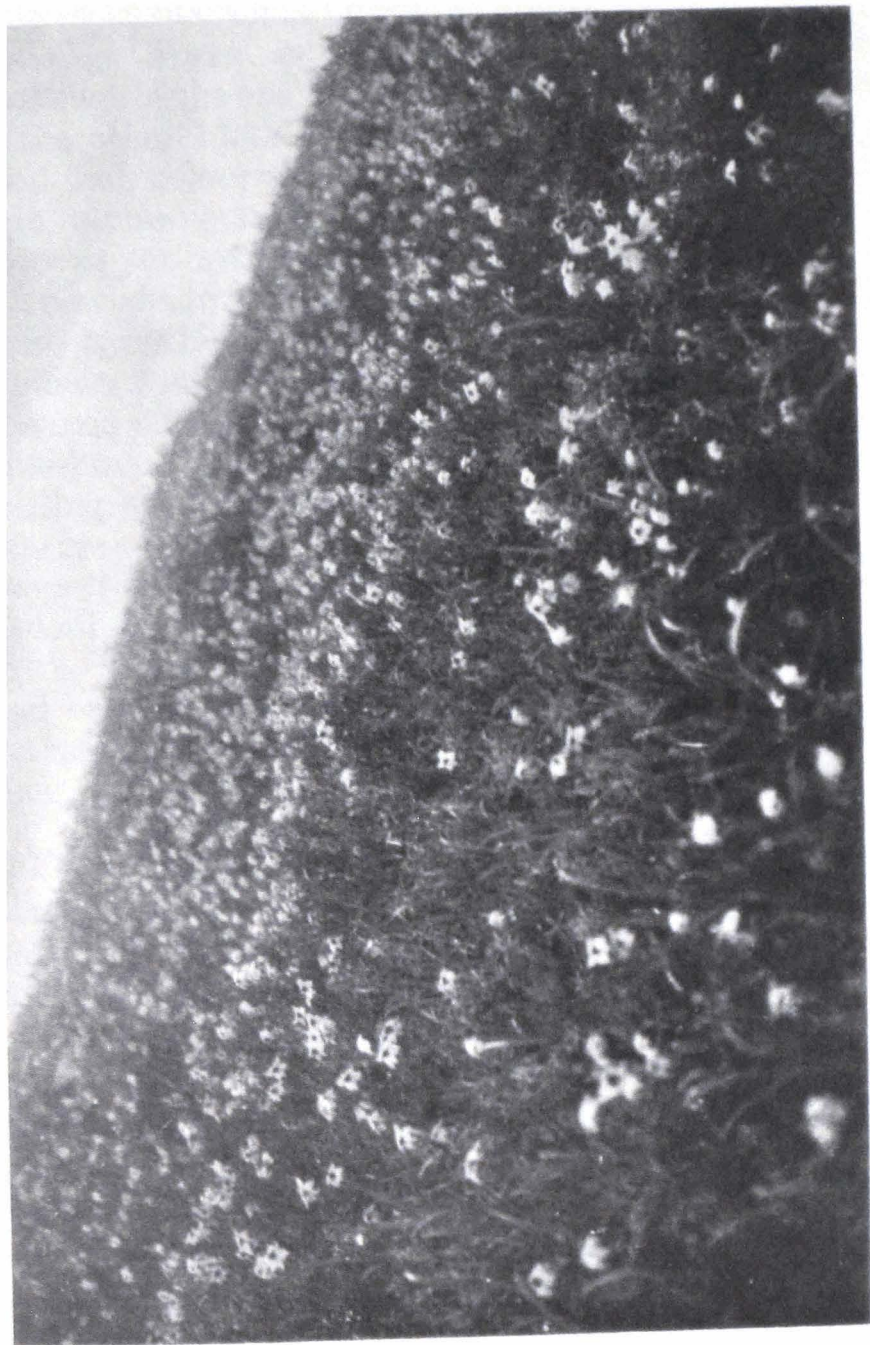
The identification of this *Rhododendron* is still a puzzle. Three plants had already been found in this area, *R. agapetum* (K. W. 1851) from the limestone cliffs below Hpimaw, *R. facetum* from the Fung-shwe-ling Pass to the east, and *R. Kyawi* from the Hpyepat Pass. The only difference I can find between the first two plants is that in *R. agapetum* the leaves and the petioles

in the young state are much more setulose than are those of *R. facetum*. Now it appears that *R. agapetum* and *R. facetum* are one and the same plant, owing to the fact that Sir Isaac Bailey Balfour only saw immature growth of the former with the hairs still adhering to leaves and petiole. I am sure that this, as in many other Rhododendrons, is a case of geographical forms of the same plant, and that *Rr. Kyawi, agapetum, facetum, and prophantum*, one of Forrest's finds on the same latitude but further east, will ultimately be merged into one species, separated, perhaps, by the minutest details caused by difference in environment.

It has already been proved that not only in Rhododendrons but also in Primulas various species have appeared out of the one seed-pod. The truth is that some genera are not yet "fixed" and some of their species are still in a state of flux. Either that, or botanists err in what they consider to be fixed characteristics in species. Most noticeable of all genera as regards their proneness to vary enormously from seed are the Berberis, which are notoriously unstable, so much so, in fact, that it is never safe to grow them from home-collected seed unless the plants are strictly segregated. The same occurs with Rhododendrons and Primulas. In any case, this argument is only of interest to the specialist, and so is superfluous; for their beauty is obvious to all who have been lucky enough to see them.

Our last and greatest find on that day was *Nomocharis pardanithina* var. *Farreri*, to give it its full title. Here, again, I cannot do better than quote Farrer. In the *Gardener's Chronicle* of November 1, 1919, he wrote:

"The first sight of *Nomocharis pardanithina* happy and at home marks as much of an epoch in the gardener's life as does that of *Primula spectabilis, Daphne petraea, Meconopsis quintuplinerva, or Gentiana Farreri*. How



NOMOCHARIS THROUGH THE MIST

shall I describe it, for the benefit of those who have only seen its lovely flowers drooping lonely in a pot at a show? It is most like some hybrid of a minor Lily with *Odontoglossum Rossii*, combining the perverse and sinister spottings of the one with the frank and graceful loveliness of the other, alike in proud, meek port and delicacy of shell-pink colouring. And when you see it on the open, high alpine grass-slope below Hpimaw Pass, nodding down at you with myriads of wide-open, dark-eyed faces, in every shade of pale rose and every degree of freckling, there is nothing very much left for you to look at on Hpimaw Pass. All over the open grass slopes it incredibly abounds among the grass, and even descends into light cane-brakes and little dells on the fringes of the wood, seeding with such profusion and growing with such hearty goodwill that though for some four thousand years (or thereabouts) the Chinese have sedulously devoured its bulbs like onions, and so continue to devour them, you could never believe the smallest difference had been made to the unbroken profusion of its drifted masses. Such is *Nomocharis pardanithina* at home, and such, no doubt, are the other recorded *Nomocharis*."

Farrer goes on to predict a wonderful future for this plant in our gardens, a future which unfortunately has not yet been realized. That there may be a future for it in time I have every hope, for I am sure that it is more a question of understanding its rather peculiar temperament than of lack of hardiness. One of the reasons for the present lack of successful cultivation seems to be that gardeners treat it as a Lily. Now most Lilies grow under conditions where the bottom half of their main stem is shaded from the sun; in some cases they actually grow in half-shade; in others they poke their noses out of Bracken or low shrub. I have never heard of a *Nomocharis* growing anywhere except in an open position, sometimes in rough alpine turf, sometimes in richer

meadowland; but never in a situation that can be called sheltered. There is one other main difference between the Lily and the *Nomocharis*: Lilies may grow in clumps, but this is not, apparently, a golden rule. They are often contented if their nearest neighbour is ten yards away. As far as I can gather, this is not the case with *Nomocharis*. They are true community plants, never so happy as when they are jostling their neighbours and carpeting the alpine turf. It is certain that their pull roots are strongly developed, and there is every reason to believe that some of them, at any rate, run underground; this is the case with the one we found. Their bulbs are extremely deep considering that the plant rarely exceeds 2 feet in height. On each occasion that we dug for them we found that they were at least as deep in the ground as the stem was tall. With these facts, or suppositions, to work on it is possible to suggest certain lines of treatment. I could imagine them succeeding on a slope facing north, or preferably north-west, with good drainage, but not dry. They will require some depth of soil, certainly worked 4 feet down, and the soil should be a lightish loam with a fair addition of humus. As we cannot absolutely guarantee a moist summer, they might be under the lea of a clump of trees that would keep off a few hours of direct sunlight.

Depth of soil is just as necessary in the seedling stage. When the time comes to prick them off, I believe that the best place for them is a frame with at least 18 inches of soil in it. Pot culture should be avoided at all costs.

I have descanted at some length on suggestions for the well-being of *Nomocharis* in gardens. My excuse is that if shape, form, aristocratic poise, meekness, colour, and decoration mean anything, there is no genus at present in cultivation that can equal them. Some day somebody will succeed.

Still another *Rhododendron* was in full bloom along the *arrête* on either side of the pass. This was *R. scyphocalyx* (F. 1024), a most charming member of the *Neriflorum* series, subseries *Sanguineum*, running through every range of orange to bronze shades. Although we never saw it much above 5 feet in height, yet its waxy flowers hung down at such an elegant angle that we were enchanted.

The next few days were spent peacefully at home assimilating our latest finds. Farrer painted and I photographed, while the weather chopped and changed every hour. For some time past we had considered the walks to our hunting grounds unnecessarily long, and Bhaju was given orders to find us an animal of some kind on which we could take turns to ride. But beasts for riding purposes are rare in those hills. He was almost in despair, when a Chinaman turned up one morning towing a skinny, razor-backed pony. At once we were given a long harangue upon all its many excellent qualities. Nothing would suffice the critical Bhaju but that I tested a few of them, so I mounted, and by dint of much kicking urged it on to the parade ground, where he ambled around for a minute or two. He seemed safe and docile, the two main requirements, so was purchased for a hundred rupees. Unlike Spotted Fat on Farrer's Kansu trip, Ma had no vices except an inordinate appetite and an incorrigible habit of stopping for a snooze every two or three hundred yards. So he became one of the family, and was given a bamboo shack for a stable.

From the verandah we looked north over the big camellia-like tree over the cup at the bottom of the hills, through which the Hpimaw burn ran, up a knife-edged spur to a sugar-loaf bummock, called Hpawshi Bum, that overtopped its neighbours by a thousand feet. It

could never lay claim to being a peak owing to its squat shape; but, owing to its height, we had always wanted to reach it. The obvious way was along the ridge north of Hpimaw Pass. This, however, would have necessitated the cutting of a path through the interminable cane brakes, and we felt that we could never get the Hpimaw inhabitants to toil up the pass and then cut a track unless actual force was used. Clerk, as usual, came to our assistance, and suggested that we attack Hpawshi Bum by way of the spur that ran down to the valley. As this began about a stone's throw from the village, it did not appear to be such an undertaking, and at his orders it was actually accomplished. Trouble began, however, when we told the coolies that we were ready to start. The path-cutters had obviously returned with a doleful story about the hardships of the climb, and now that Clerk had returned to Htawgaw, the fear of authority had been removed and the Hpimawites would not stir. We fussed and fumed for two days, while Bhaju rushed up and down the hill. So it was late on the afternoon of June 21 that enough had been collected for our purpose. Then down the hill we trudged and over the bridge, where a little copse that seemed to be laden with scarlet fruit drew our attention. This turned out to be that wonderful climber, *Tripterygium Forrestii*, that gains its effect by smothering itself with bunches of winged sterile seeds which turn a blazing scarlet in early summer. It is an annoying plant at home, since it is not hardy enough to seed outside, and it does not appear to like the damp atmosphere of a greenhouse.

We climbed steadily on ahead with Bhaju. It was a stiflingly hot day and, while we panted upwards through the bracken-clad lower slopes, the coolies tailed out further and further behind. Hill and valley were alike smudgy with that thick lifeless haze that comes before



A STORM CREEPING UP THE VALLEY FROM HTAWGAW

rain. The track-cutters had cut a swathe through the Bracken right on the ridge, so there were no zigzags to ease our legs. It was solid climbing.

When the dusk fell, we became worried over the lack of a flat patch on which to make camp; but ultimately we came on one and lit a bonfire to show the laggards where we were. They staggered in between dusk and midnight. We had an added discomfort in that there was no water, but luckily it began to rain at bedtime, and by putting out every available receptacle we collected sufficient for our needs. We awoke to a filthy morning in clouds that never moved, with the rain coming down with a steady persistency. By noon the rain had stopped, and we pushed on up the vile track that carried straight up the ridge, which was exactly like a saw with gigantic boulders for teeth. We were now out of the dry area and back again in cane brakes and tangled scrub. This spur had been burnt many years before, so severely that it had not recovered, and all that remained were scorched and ungainly stumps of a tree Juniper and a Hemlock Spruce, blackened phantoms that loomed through the mist out of a sea of undergrowth. The only plants that broke the level were *Pyrus Vilmorinii*, as graceful as ever with its swaying branches laden with unripe fruit and *Rhododendron crassum*, virile enough to survive the scorching, but in a damaged and dying condition, so much so that it was a prey to every insect. The buds were riddled with maggots, and in November, when I collected the seed, I found not one whole seed-pod. Still it has germinated well, and is proving hardier than many other rain-forest species. It forms a large bush or small tree of 12 to 14 feet with large, fleshy, and intensely fragrant, white flowers at the end of June. The leaves are ovate, and are heavily veined and crinkled. It has one character

that I have never seen in any other *Rhododendron*: the seed-pods are very fragrant and smell strongly of sandalwood. Its scent is its oddest point, for it has none of the aromatic quality that is usually present in greater or lesser degree. The flowers are undoubtedly clove-scented, but there is something else present, something that associates it with the *Gardenia*. Its place should be in the tropics and not on a cold damp spur at 9,000 feet.

The coolies kept with us that day, as they were frightened of getting lost in the mist, and no wonder, for it was so thick that we could not see more than a hundred feet in front of us. The going was worse than ever, and we made a short three-hours' march. We had the same trouble in finding a flat spot on which to camp, and in the end had to demolish a thicket of Bamboo that clustered on a tiny square of flat ground. Still, we were getting up, and above our camp the ridge began to flatten out. The next morning found us wading through Bamboo and thickets of *Rhododendron* such as clustered about the rocks by the Hpimaw Pass and the Chimili. Here both *R. aiolosalpinx* and *R. scyphocalyx* made flat-topped thickets so tight and interlaced that it was quite possible to walk along the top without falling through. These flat tops are caused by the incessant winds that cut off like a knife any shoot rash enough to emerge from the shelter of its neighbours. The only fault of this method of growth is that the flowers are mostly produced underneath this impenetrable canopy, and so are hidden from view; otherwise, I see no reason why this method of planting should not be practised on windswept hillsides on the west coast where summer rains are sufficient to keep the plants from getting scorched by the sun. For some reason or another gardeners at home imagine that there are no casualties among plants in China and Burma. They die every

year by the myriad, but the area is so large and the quantities so great that casualties are little noticed. It is only in a year of prolonged drought like 1921 that whole areas are wiped out. Both Forrest and Kingdon Ward tell of walking over mile upon mile of hillside in that year, when every *Rhododendron* had been killed and nothing was left except gaunt sticks of dead wood.

After a two-hours' scramble we emerged on a little grassy gully which, even through the mist and rain, shone with a white *Anemone* and the yellow bells of a *Primula*. Here was our first alpine meadow in its full summer array. We had now reached 12,300 feet, and stopped there and then, lest ill should befall us. We had no means of knowing how far we were from the top, as we could not see in front of our noses. The coolies slowly trickled in, but it was a long pull for them, and they must have felt the cold and damp desperately in their cotton rags. Even Bhaju and the Dragon looked bedraggled, and they had been served out with extra clothing. Much as we had prayed for clear weather, it came down worse than ever. Leaving Bhaju to arrange camp, we wandered on so interested in our meadow that we bothered little about a sharp driving rain that now added to the joys of an infinity of mist. The meadow was covered with sheets and drifts of paper-white *Anemone narcissiflora*, exactly the same as that on the European Alps. Out of these drifts occasional heads of *Primula seratifolia* raised themselves. These only carry two or three flowers on an 8-inch stem, but the grace with which they are borne and the clear lemon-yellow with a flick of orange down the centre of each petal make it at least the equal of any *P. helodoxa* that I have seen. This little meadow ended in a rocky couloir, where among the boulders and little gullies every alpine on the range seemed to have found a home. Right in our way, and

flaunting its beauties in what must have been the most exposed position on the whole range, was a soft pink form of the same *A. narcissiflora* that had greeted us below. This covered flat-topped boulders with tablecloths of soft silver-green decorated with open pink faces. They were tablecloths, too, on noble lines, for their skirts took in yards of the boulders' surroundings. Strange to say, the pink and white forms never grew together, and the pink invariably lorded itself over its more ordinary brother by streaming in a torrent of leaf and flower down the face of a boulder. Much as we should like to make a new species out of it, there is no botanical difference between the two plants.

To Farrer's joy he found a new species of that curious genus, called *Omphalogramma*, that botanists delight to join with *Primula*, only to remove them again just as willingly. Like all its relatives, *O. Farreri* (F. 1053) has a flower like a gigantic Violet. We came upon it first at the end of the lower alpine meadow with a large, egg-shaped seed-pod already formed on the top of a furry stem that rose from a nest of stalked and hairy leaves. Higher up we found it still in flower, each stem crowned with a large, solitary, fringed flower of deep violet with a white throat. It always disdained the company of meaner plants and grew in solitary seclusion in the lea of cane brakes where it could get its feet well down in damp, cool soil. By this time it was blowing a hurricane. With dusk approaching we were afraid of losing our way to camp in the driving mist, no very difficult task; so we stumbled back through our meadow well satisfied with our finds.

Back at camp we found groans and gnashing of teeth, for the chokra had overeaten himself, as chokras will, and was yelling and rolling in anguish. For a moment we were duly alarmed, but were consoled by the Dragon's



MANGLICTIA INSIGNIS

look of disgust as he went on with the important task of trying to fry our rissoles over a damp fire. All he said was: "Too much rice half-baked." The staff not only considered the chokra a glutton, but were more than annoyed that he should make a pig of himself at the top of a mountain after great difficulties over transport of supplies. So in revenge I concocted a fearsome mixture of calomel, soap, pepper, and quinine, forgetting that many people, of whom the chokra was one, believe that the nastier the medicine the more efficacious it is. At any rate, he turned up bright and cheerful the next morning. We were far more sorry for the coolies, who were shivering in their soaking thin rags that clung to their bodies. Bhaju, in his usual direct manner, said that he was not worried so much over their miserable condition, to which they were accustomed, as over the thought that they might desert in a body and leave us stranded. He suggested that we should take them with us the next day, when they would be under his eye. In the end they made a roaring fire—bamboo again—in front of their shelter and toasted their feet all night.

By this time we were getting accustomed to the weather, and expected the same driving rain and penetrating wind. We were not disappointed. It had apparently settled into its monsoon stride, so there was nothing for it but to make for the peak. Off we started, with Bhaju shepherding the coolies in front of him in order to cut a track where the last bays of Bamboo reached hungrily out for the summit. We made our way through the alpine meadow and then came upon acres of bare hillside carpeted with the heather of that part of the world, tiny dwarf Rhododendrons. There were three that grew together, fighting for possession of every nook and cranny among the rocks that was not already occupied by *R. scyphocalyx* that we were to see later in

such profusion at the Chimili. The most important was *R. calostrotum* (F. 1045). This covers the open moorland with a carpet of grey-green foliage from which rise large round blossoms, almost platter-shaped, of a rich magenta-rose, by no means a bad colour, on pedicels an inch or two in height. The flowers are so large and are produced in such numbers that we marvelled at such a small plant carrying such a wealth of bloom. This plant created a sensation when it was first shown in 1924. It is obvious from its growth at home that, if allowed, it will grow to a height of 2 feet or more; but on the Hpimaw hills it is so rasped and buffeted by the wind that it rarely raises its head above a meagre 8 inches. In cultivation it proves variable not only in foliage, but also in the colour of the flower; there is one form that is nearly pure white. In any case it is an exceedingly valuable garden plant, probably the most useful *Rhododendron* that we introduced.

I far preferred the second of these carpeters, one of the incomparable *Campylogynum* series, which for grace, proportion, and poise must rank at the top of all dwarf plants. Imagine yard upon yard of turf cushioned with masses of small, shining, dark-green leaves, out of which rise delicate glandular flower-stalks. From each hangs a single little bell-shaped trumpet of sculptured wax, a deep mahogany inside and a claret exterior that is covered with the bloom of a purple plum. There is another form, a uniform claret-mahogany inside and out. There in those hills this delicious morsel with its elfin grace flowers year after year at a season when it never sees the sun; and yet it so obviously enjoys life. Such is *R. myrtilloides* (F. 1046). It is also in cultivation, but it is a little more elusive than its coarser cousin, *R. calostrotum*. Every year in my garden it grows a little firmer and a little more happily, and every year it

pokes up an extra inquisitive flower. I consider it to be one of my greatest treasures. After these two the third carpenter appeared a dowdy, although in its way it is quite a pretty little plant. *R. propinquum* (F. 1047) is one of the vast group of Lapponicums, the real heather plants of the high hills of Eastern Asia. It has deep purple flowers, but they are squinny and shapeless after the beauty of the other two. Among these cushions of Rhododendrons grew a little alpine willow that we could not distinguish from the common species at home. There was also a neat little Cassiope, *C. myosuroides*, that scrambled over the lower rocks wherever it could get out of the way of the Rhododendrons; a delicate little morsel it is, with little crimson stems and a solitary snow-white lily-of-the-valley bell perched on top. I could go into ecstasies over its charm, but what is the use? This genus is an incorrigible sluggard when we try to grow it, and no amount of coaxing will ever make a garden plant of it.

We had been so interested in our finds that we did not hear Bhaju arguing with a strike committee of the coolies, who considered that because we were mad was no reason why they should freeze to death in that inhospitable spot. Just at that moment an icy blast stung us with lashings of sleet. At once all arguments and pleadings were given up, while all huddled on the lea of a great boulder. As soon as we could, we marched on and came to a big gully where stood serried rows of our *Omphalogramma* luxuriating under the constant drip, drip of an overhanging rock. No plant that exists can be so successful as this in seizing upon every position that has great depth of rich damp soil, and yet is sheltered from the wind. This leeward side must have suited it to perfection, as we never saw it again in such magnificent and opulent array. We had to crawl out

of this gully on our hands and knees under a cane brake that showered a deluge from every leaf. Then through the mist we saw the final hummock a few yards ahead, with a little cairn on the top at 12,600 feet which the Indian Survey had built several years before. The actual top was the exact shape of a tumulus, and on it sprawled the pink Anemone, a little white Diapensia, and another new Primula, similar to our little friend of the pass, but even more fragile, with bluer flowers and entirely powderless.

Having reached our goal we wasted no time in bolting back to our camp. Our scramble took us three hours, our return three-quarters. We found the camp a quaking morass; so in order to ease our conscience and bring a little joy to the hearts of the coolies, who, Hpimawites or no Hpimawites, had stuck out a frantic day in their miserable rags, we promised them an extra day's pay. And so to bed in damp blankets, but fortified with a tot of rum and a hot-water bottle. Still another day we spent up there, hoping against hope that it would clear so that I could photograph. But it rained and blew as hard as ever, and early the next morning we gave up the fight and dashed home, taking seven hours to do a journey that had taken us three days. Then came the joy of a hot bath and a roaring fire in the Hpimaw stove.

After venting its spite on us on Hpawshi Bum, the weather returned for a few days to its old habit of pelting all night with a thick mist in the morning and a moderately clear afternoon, though with an occasional thunder clap, just sufficient to keep us on tenterhooks. Farrer was worn out after five days' continuous soaking, while even the iron Bhaju succumbed to a short but sharp attack of dysentery. So we spent two days of enforced idleness, made all the more lazy by wafts of

stuffy air rising from the steamy valley below, where every paddy field was clouded in vapour five minutes after the sun came out. We lazed and read and flapped feverishly in our efforts to keep off the blister-flies; for in that airless atmosphere these blood-suckers seemed to increase in vigour and hunger, and at times became a plague. Still we were thankful for an hour or two's sunshine in which to dry off our bedding, which on Hpawshi Bum had absorbed moisture like a sponge.

On the third day we summoned up enough energy to make another trip to the pass, much helped on our way by Ma, who heaved himself around corners and over tree roots in a most amiable fashion. By this time the rain forest had ceased to produce anything at all. It was one unending mass of dull green, with the floor a rampaging mass of weeds and undergrowth and every branch and trunk clothed in a tight swathe of creepers and ferns. It was only when we reached Nomocharis Corner that we were roused to any enthusiasm. Then, of course, the mist came down, as it would; for where there had been a thousand blooms before, now there were ten thousand, all waving their welcome at us through the mist like a myriad baby Chinese lanterns. From Nomocharis Corner up to the pass the pathside was a haze of azure and white and gold from *Anchusa* and *Thalictrum* and *Corydalis*. Once the hot months are over there is no danger in that climate of plants rushing into flower and rushing out again; indeed, there are very few that do not retain their beauty for a fortnight or more. The little marshes that had held *Primula sonchifolia* were now filled with the spikes of *Rodgersia sambucifolia* rising above the fat, æsculus-like foliage. And such a variety of pinks, from the palest shell, so soft that it was really a translucent white, to a rich cherry. Farrer said that he longed to see the day when they should be established by thousands

in open woodland glades instead of choicely cherished in corners of the rock-work dell, the last place in the world to suit their voluminous temperament. For some reason or another they do not thrive at home—much like the eastern Rhubarbs. You would imagine that their great roots and fat foliage showed a vigour sufficient for any climate, but they are not really happy in cultivation.

At the pass Farrer went south and I north to see what we could find. What we found was that we had nearly finished our work on the Hpimaw Pass until the seed harvest. I found another Rhododendron, *R. plebeium*, a very typical plant of the *Heliolepis* series, with narrow, aromatic leaves, very glandular above and below and soft-rose flowers. This was an addition to the table-top Rhododendrons, and one that we saw in great abundance later at the Chimili. It has been introduced several times, but, strangely enough, has not gained the popularity it deserves. For here is a late-flowering species—this was on June 30, and it was only half out—very free flowering, with a pleasant aromatic tang. It forms a shapely bush and, last but not least, it is absolutely hardy. Here I can point a moral. Do not be impatient with a new plant. I have seen *R. plebeium*, the first time of flowering, sending up one ill-balanced dirty-coloured spike. Some discuss its merits without imagination, and vote it to be a poor plant. Let growers just remember that in many parts of the East the flora is so rich that there is almost as much competition among plants as there is in our gardens. We found forty-five Rhododendrons, of which we considered only fifteen to be of first quality. *R. plebeium* is among them. It might be a better colour, for the rose is a little dull, but that is the only thing against it. It should be more often grown.

In a little gully on the Chinese side, that we had visited when it was brown and sere earlier in the year, there was now a stately colony of some twenty crimson Lilies, in size and shape exactly like *Hyacinthus candicans*, so like, indeed, that E. H. Wilson, who found it in Szechuan, calls it *Lilium hyacinthinum*. The flowers are a clarety-red, not at all a bad colour, with faint green spots on the outside near the base. It loves the deep rich earth at the bottom of a hollow, perhaps shaded by a little thin scrub. It has flowered in this country, and I have hopes that it may turn into a useful garden plant. There was little else of interest except a bright yellow Musk that flaunted itself in every gully, and a *Berberis* so good that it deserves a paragraph to itself.

This is true *B. Wallichianum*. It is doubtful if it has ever been introduced before. It is a low-growing, evergreen, bushy shrub, heavily branched with leaves like a large *B. verruculosa* in shape, the darkest of dark greens above and so glaucous below as to be almost pure white. The flowers are lemon-yellow and the fruit black, fairly large in size, but not very striking. Its beauty lies entirely in its neat appearance and extraordinarily effective foliage. I now have plants growing over 4 feet high in my garden in Perthshire, and I find it absolutely hardy. Although it does not colour, every year a few bright scarlet leaves appear in autumn that persist until the following spring. I place it very high among *Berberis*. Farrer had found little on his side of the pass, and had spent his time in collecting a few early seeds.

Some time before Clerk had whetted our appetites by describing a marvellous *Rhododendron*, of which he had seen only one bush, that grew two days' march south-east of Htawgaw on the way to the Hparé Pass. He described it as having long, waxen-white tubes that were

strongly scented. Farrer was all of a dither to add this treasure to our bag and, as we had a fortnight to spare before we moved our establishment to the Chimili, he decided that we should make a flying trip to the Hparé to see what we could find. We left Hpimaw on a leaden, stuffy day, the coolies actually having turned up on time, perhaps because it was an easy road, and we journeyed down the valley to Blackrock. The moment we arrived the thunder began to grumble, and we saw the afternoon blanket slowly settling on Hpimaw behind us. Instead of rain by night and a mixture by day the weather now changed round most annoyingly to a miserable day and a starry night. We had expected nothing from the Ngaw Chang valley, so were pleasantly surprised to see every meadow bright with tall spikes of *Hedychiums*, pink and white and yellow; the last, in fact, struggled up as high as Hpimaw, but its flowers were rather ragged and it was the most uninteresting of the three. The commonest in the valley was a brilliant salmon-pink that made a noble showing in the meadows with its loose though erect spikes.

But the glory of the dry valleys during the rains is *Luculia pinceana* or *L. gratissima*—they are so close that they are difficult to tell apart. I believe the only difference is a tiny callus between the base of the petals. Whichever it was, it was a joy to behold. For every dry bank was studded with great fat bushes of this glorious shrub, anything from 4 to 7 feet in height, each one smothered with clusters of salmon-pink flowers, in shape rather like a herbaceous phlox, and deliciously scented of hyacinth. As we saw it, I should give it place as first of all the flowering shrubs that I have ever seen. It had an added joy to us, as it grew unclogged by other vegetation. Groups of them, as vivid as a sunset, clustered on the dry face of the lowest slopes of Imaw Bum with



COOLIES FROM THE SALWEN RESTING ON THE HPIMAW PASS

an occasional clump of Oak or Pine as a background. Wherever they grew, they lit up a dull hillside with a sublime radiance. Even after this interval of time the memory of this riot of colour and sweetness gives me a thrill.

Our next day's journey to Hkam Khom was one of solid plodding only brightened by the *Luculias* and enlivened by Ma's persistent efforts to lie down in the road and roll with one of us in the saddle. Bhaju was shocked at this sign of ill-breeding and walked behind with a long cane with which he stoutly thwacked the offending one's buttocks at the slightest sign of a sideway movement. Htawgaw hill, a dull, blackened lump on our way up, was transfigured by sheets of *Luculia*, and we arrived at Clerk's house well pleased with ourselves, rain or no rain. Clerk was away on one of his never-ending journeys—this time, I think, to the fleshpots of Myitkina and Maymyo, but we went to Candy Castle for dinner, and spent an uproarious evening.

Candy came with us the next day to Luksuk Tabang, the end of the stage. It was an uninteresting stretch of country. The hills, although dull and shapeless, fell away steeply to the bottom of a narrow valley, shutting in the road until we gasped for air. The hut at Luksuk was a more than usually ramshackle affair, leaning drunkenly to one side and threatening to fall down at the slightest push. It was saved, however, by its pretty situation on a knoll between two spurs with a little stream, filled to the brim with the incessant rain, chattering away to itself below. The next day broke, as usual, wet and miserable. Candy returned to Htawgaw, and we watched his figure sheltered by an enormous blue umbrella disappearing round the bend. Then we started off to the Hparé. The road began in the approved fashion by winding up and over, round and under all the

interminable bends of the thickly wooded valley. There was nothing to see and nothing to do except to stump along and try to keep dry, an impossible undertaking; for if we buttoned up our waterproofs it was so stuffy that we were at once in a bath of perspiration; while if we left them open the water trickled off our helmets down our fronts. It was a short stage, however, and the situation of the Hparé hut was worth the journey. It stood a hundred feet above the stream, looking out over a broad valley dappled with fields of buckwheat stubble in place of the interminable paddy terraces of the lower valleys. The weather cleared up towards evening, and we actually saw the fields golden under the last gleam of the sun. The village, also, was out of the common. It looked prosperous, with each hut nestling in its own garden full of beans and maize and cockscombs, with a clump of big Bamboo alongside grown for household purposes. It was one of the few occasions on which we considered the native life at all picturesque; no doubt partly caused by the evening light that made the blue smoke from the fires, the green of the Bamboo, the brown of the huts, and the gold of the stubble more alive and glowing and luminous than anything we had seen for many a long day.

By midnight the rain had repented of its kindness and a steady deluge set in that lasted for several days. We started off again with the intention of camping on the divide a few miles further on. We crossed the stream below the hut and wound along its bank for two miles through damp coppice, in which we found *R. crassum*, lovely enough with its scented white trumpets, but certainly not Clerk's Rhododendron, which we never found. I have an idea that he had come across a plant of *R. sino-Nuttallii*, strayed far from its base a hundred or so miles to the north. It is the only plant that fits

in with his description, and these low, heavily coppiced valleys and jungly dells are what it loves.

By this time the water was pouring down the path, and I was feeling the first twinges of a rheumatically knee that troubled me for several weeks after; so we gave up the idea of the divide and returned to Hparé. The only other interesting plant that we saw was a golden-yellow *Dendrobium* that dangled from nooks in the high trees. Still, there might be much of interest to find in that neighbourhood earlier in the season, for it is far flatter and more coppiced than the rest of the country.

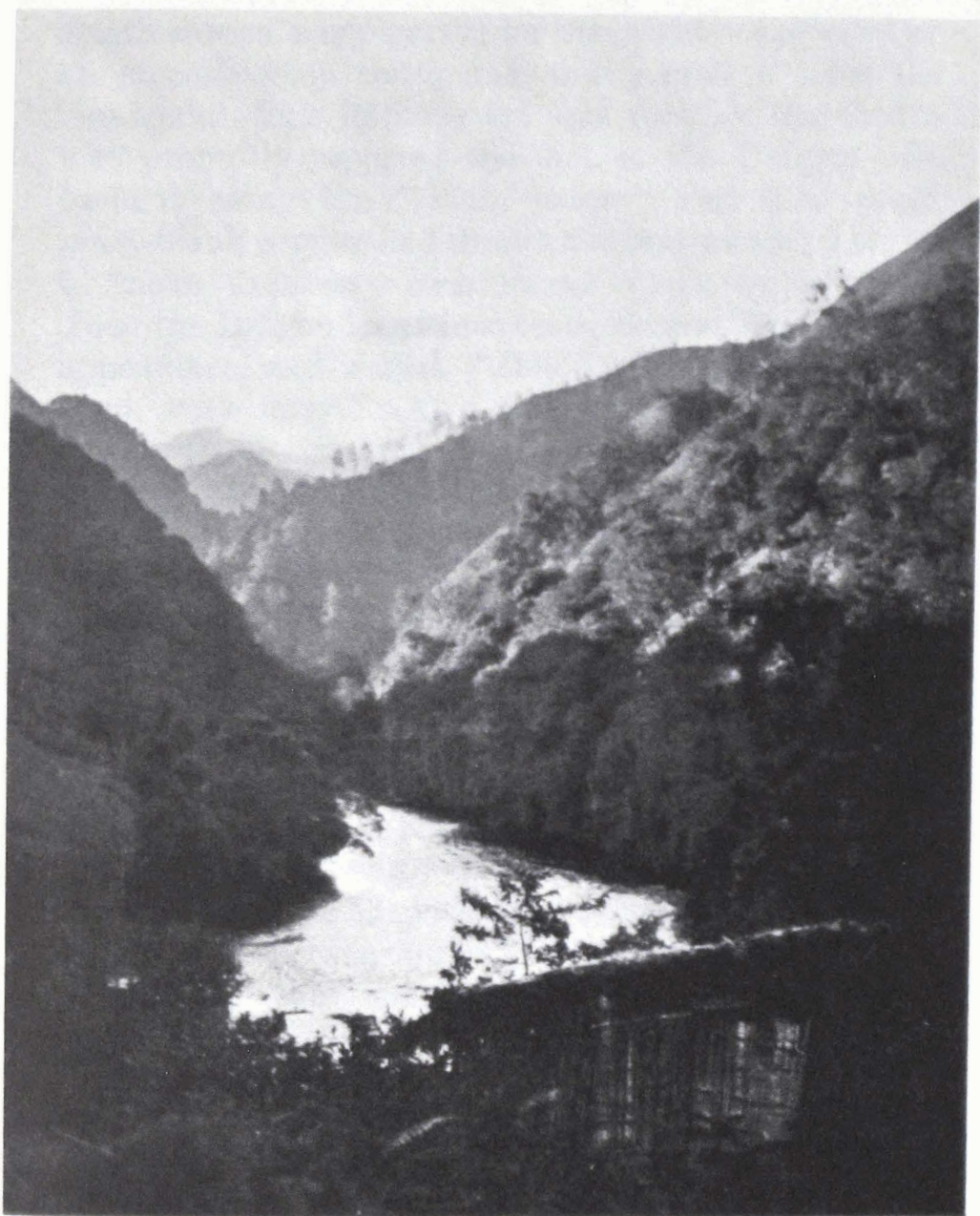
The next day was just such another soaker, and we remained indoors. The night gave us no rest, for the stream had turned savage and was bringing down trees and boulders that cannoned against each other in a whirlpool below the hut and kept up a ferocious banging all night. Just as we started off on our return journey, the weather began to clear, and by the time we arrived at Luksuk it was a lovely evening. So fine was it on the following day that we decided to miss Htawgaw and go right through to Hkam Khom. The journey back was particularly tiresome. Ma produced a sore back, and I had to limp the many weary miles to Hpimaw under a broiling sun.

CHAPTER V

THE SUMMER CAMP

THERE is always a certain amount of routine work for the collector temporarily immobilized by the weather. There we were, at Hpimaw, kicking our heels for ten days and waiting patiently for the promised break in the rains that comes before the final deluges of September. There was plenty to keep us employed, sorting out specimens, packing up early seeds, filling in field notes, and developing plates. We were safe from the interminable gossip that fills a hill station during the rains; for, with the exception of Candy, who came up from Htawgaw for a day or two, we had no one to talk to or answer except our two selves. Day after day the weather growled and spat at us. We never saw the sun from beginning to end. If it was not pelting with a steady persistence, the heavens were smothered in a grey, leaden pall. Then the wind would fall, and the air became heavy and lifeless. The extraordinary part about the rains is the deadly stillness, all the more pronounced owing to the steady swish of the rain and the drip from the eaves. Morning and evening the Gibbons in the forest below gave us half an hour of their cacophonous concert, like the noise of a crèche with every infant yowling. Otherwise not a sound was to be heard: birds and beasts seemed to be smitten alike with the deadness of the climate.

We became more and more crabbed. We grumbled at life in general, and at the everlasting soup and goat that the Dragon prepared for us in particular. This at



ON THE UPPER REACHES OF THE NGAWCHANG

length caused a cry party; for one night we rebelled at an anæmic goat consommé and poured it over the verandah. This impious act was seen by the chokra who promptly reported the fact to the Dragon. He brought along the "Plum ystew" and then asked point-blank why we had thrown the soup away. I began to make excuses, which Farrer spoilt by laughing. Then the Dragon burst into tears, despite his dragonish appearance, and wailed, "Don't understand, soup not good, very sorry." As a salve to our conscience we smacked the chokra's head, an operation that the Dragon repeated later. So some good came from this unfortunate domestic episode after all, for the chokra had been getting uppish for weeks, and he was now relegated to his proper inferior position.

We were horribly afraid that the weather would not clear for our march, but we timed it perfectly, and the day of our departure was glorious. As usual, most of the Hpimaw coolies were small, and all were lazy. This time our journey up the Ngaw Chang valley was a pilgrimage of healing. On our way down we had distributed a few medicines, which had apparently been effective, more from faith in the healing qualities of the white man than from anything else. Word had now gone out in advance that we were again coming up the valley; for the sick and the halt and the maimed appeared at every village. This was bad enough, but the messengers that came in from distant villages with descriptions of ailments were far worse. First they would minutely describe the sufferings of the patient in Chinese to Bhaju, who would translate it to the Dragon in Ghurkali, who passed it on in turn to me in his garbled English. The result was always the same: I gave them a bottle filled with glyco-thymoline and water. It was at least harmless, and might do good. It could be rubbed

on or put in the eyes—and eye trouble was common, including the extraordinary Chinese complaint of ingrowing eyelashes—or taken internally. The bottle in itself was such an acquisition that the patient usually recovered.

Farrer, as usual, refused to have anything to do with the natives unless they were Lissus, with whose good qualities he was mildly impressed. So I had to do the doctoring and, in a way, found it most interesting. The most common complaint, after eye trouble, was sores on children caused by scratching bites of blister-flies. This is not surprising considering the fact that they run about naked, and after they are bitten scratch and roll in all kinds of filth about the huts. I pride myself on finding a remedy for this, washing the sores in permanganate solution and dusting with iodoform afterwards.

Our progress was a triumphant success. Even at Kang Fang, where the natives had been surly before, we were graciously received and given sufficient coolies to take us on to Sabiya Kaw. The view up the Ngaw Chang was more beautiful than ever with the river in full flood and the shingle beds covered by the torrent, while the sunlight streaming through the damp atmosphere struck the river with an eery glow as it bored its way through the folds of the hills. The side stream to Sabiya Kaw, however, was as uninteresting as it could be. Where blossom had brightened the damp woodland before, now there was nothing but a dark and soggy green. The only plants of the slightest interest were a tiny liliaceous thing, a *Streptopus* of some kind, that unfolded 5-inch spikes from which hung successions of fringed, pearl-white trumpets, and a weird, twiggy shrub with small, dingy bells produced on the stem and a smell as sickly and vile and all-pervading as that of any flower I have ever known.

We were welcomed with opened arms at Sabiya Kaw. At once a meeting was held with our friend the Akiwa. Everything about coolies was amicably settled, and then Farrer and I strolled up the valley at peace with the world. We sat on a stile and found our surroundings more beautiful than ever, for the fields were now filled with the delicate green of half-grown maize. There was not a flicker of a breeze, and the hills were bathed with a heavenly golden radiance that slowly disappeared into the empyrean, leaving valley and hillside a uniform soft grey: and then darkness.

The joy of getting up to these valleys again was almost beyond belief. More than ever we felt that this was the only place where we were not submerged and beaten down by the physical and mental weight of the interminable jungle. We could scamper up the hills in any direction—only to the south of the Chimili camp was the Bamboo a nuisance, and even there it was not potent enough to stifle all other vegetation. At Sabiya Kaw we shed such necessities to civilization as the telegraph and Bengali babus, and lived a simple, untrammelled existence. The only thing we religiously kept up was the matutinal shave, not from any feeling of conservative cleanliness, but because a beard irritated our chins.

On the next day we got up with the lark and found the coolies waiting for us. Even the hills were pacified at our coming, and the sun shone as it had never shone before. Our triumphant progress was only marred by one heavy splash on the way to the jungle camp, when again we took shelter in our hollow Coffin tree. We were a completely happy party, and even the phlegmatic Bhaju and the Dragon came to life in the sharp cool air and smiled and chattered away. The trudge up to the Jungle Camp was easy for everybody except Ma, who was so lazy that he tried to clamber over a fallen tree instead of

going round. He slipped in the process and was stuck see-sawing on his belly, which was bruised and rubbed in consequence. He alone did not approve of the jungle camp, and flirited his heels in our faces, an unwarranted piece of impertinence, on being sent down again to feed on the fleshpots of Sabiya Kaw until our return.

Once arrived we lost no time in making a preliminary survey of our surroundings, and what a search! What had been bare on our previous visit except for a few choice morsels was now a waving sea of Balsams. As Farrer said:

“The alpine woodlands abound incredibly in the dreariest and dingiest of Impatiens in a series of species dozens-long that I am ashamed to say have, nearly all, eluded the flower-press. One or two, indeed, are handsome, but even they are lush and blowsy. They are dull weeds and probably pestiferously prolific into the bargain.”

These amazing jungles were a fraud, for their succulent stems and coarse foliage betokened something better than the mimsiest of flowers in the dingiest of colours, and in scanty numbers at their best. Farrer climbed above their range in high dudgeon, but was mollified by finding a delicate little pinkish *Meconopsis*, or *Dicranostygmia*, with single flowers bobbing to and fro on a threadlike stem, but these were only the scouts wandering down from the alpine meadows above. We came upon them later scattered in little colonies on the high tops. In the balsamic neighbourhood all we found were a colony of the Crimson Lily, very stout and gross on the lea of a copse, a neat little *Ophiopogon* with dainty little stars of ivory-white freckled with soft violet, and a pretty pink globular-flowered Garlic that cared little where it lived and was as common on the tops as in the



THE SUGAR LOAF FROM ABOVE THE CHIMILI CAMP

valleys. The last filled our staff with rapture, and in self-defence we tested its culinary properties: its potency, however, was terrific, and gave us a rash, so we gave up the attempt.

We returned to Jungle Camp swearing at this rank herbage and alarmed at the prospect of the midge invasion. These, however, had disappeared, and we settled down to watch the stormy sky over Imaw Bum. We had the usual fireworks from a midnight thunderstorm, but by nine the next morning it had cleared up to a perfect day. This was our final march to our little glade. On the morrow there would be no more packing and unpacking, so we betook ourselves on our way with an indolence that only comes at the end of a journey. The coolies started off under Bhaju and the Dragon, whose first visit to the glade it was, and who was determined to be the first to arrive, so that the all-important position of the cook-tent could be arranged to his own personal satisfaction. Farrer and I acted as flankers and wandered far from the path through the thin cane brakes. The Balsams were everywhere, as was the Garlic. As we slowly left the forest zone and came under the influence of the Chimili valley itself, there was more to be seen where boulders and rocky beds of granite, the last remnants of gigantic rock-falls of the past, lay scattered among the thinning scrub. The Crimson Lily became commoner, and was to be seen in many a little dip and hollow where the soil was sufficiently deep for its burrowing bulbs. Now and again the only worthy *Codonopsis* I have ever seen clung lovingly to the outskirts of a Bamboo clump. And *Codonopsis Coxii* is a fairy-like morsel with leaves as fine as a Maidenhair Fern, and bears an occasional dropping bell the size of a Canterbury Bell, but as thin in texture as goldbeater's skin, of a translucent yellow-green with lines of the

purest violet, broad at the base and fining to the most delicate pencillings as they approach the tips. Here is no coarse being that flaunts its wares by the wayside. It clings to its shade, always retiring and never with more than six of its pendant luminous lamps on a plant. Even the pervasive foxy smell that places the *Codonopsis* among pigsty plants is faint and subdued. We searched for hours in October for seed, but only found one fertile pod, and this we lost, which was one of our minor tragedies.

Bhaju had clung to the hillside with his camp party until well within the valley, so as to avoid the pitfalls by the torrent side where it plunged down towards Jungle Camp. But once inside, he hacked a way to the stream and used its bed as a path.

Once in the valley there was even more to see. Our multi-coloured *Rhododendron* clung to the banks, always with one foot in the water. Even at this late date there were enough flowers remaining to show us what a treasure we had found. For *R. aiolosalpinx* has a haunting charm about it such as few plants give. It is such an aristocrat in its elegance and poise. *R. plebeium* also hugged the rocky gullies, making solid thickets of an extraordinarily even height of 6 feet. It was now in full flower, every bush smothered with its cherry-red bells. In addition to its beauty, it spiced the air of those gullies with a clean and enticing aromatic scent, from tiny brown aromatic glands that pimple every leaf and stalk. Even at home I have noticed that it is the most aromatic of all *Rhododendrons*, particularly on a warm, damp evening.

A little further on the valley bed began to flatten out and the stream ran placidly over shingle beds. *Mecopnopsis rudis*, that old, blue prickly favourite, already ripening its pods, strayed over the shingle, as did tuftets

of what was no other than a new Ornata Gentian that we were to see in its full beauty on our autumn visit. Here the glades ran more frequently down to the water's edge, and glorious they were in their August magnificence. By all canons the rain should have been tumbling down, but instead there was a blue dome overhead with little wisps of cloud slowly sailing across it. At our feet lay every colour of the rainbow. We skirted meadows where the blue of the sky was mirrored in the blue of *Corydalis curviflora* that Farrer had last seen in Kansu—every effort should be made to get this glorious plant settled in our gardens. Alas! up to the present everyone has failed, for its colour is of the purest azure, as pure as that of any Gentian—it ran riot along with golden Potentillas, a dwarf Polygamum of the rich hue of the best form of *Ribes sanguineum*, an orange-yellow Narcissiflora Anemone, a sweetly scented lemon-yellow Corydalis, and the usual leavening of lilac and blue Alliums, while a white japonica Anemone of crystalline purity drew the entire galaxy of colour into one vivid rainbow. Here was what we had come all these miles to see, and we were satisfied.

Then we came to our own special glade where the coolies were busy running up shelters and the orderlies and chokra already at work on our last tent. This glade was so obviously made for our own special benefit. A little brook babbled down the side of it from a jagged cleft in the rocks above, with a grove of blue-black Spruce on its far bank, and around cane brakes that kept off every wind. Here we were with a botanic garden at our feet. My bed sank into a springy floor of *R. calostrotum*, while the servants had a mattress of *R. myrtilloides*. Swathes of a snow-white Cerastium had to be cut down to make a level for the dinner tent. Each mossy boulder by the streamlet had its satellites

of various *Herculus Saxifrages* in vast abundance, while the boulders themselves were the home of the tiniest of tiny *Primulas* with microscopic rosettes of leaves, which we never saw in flower. We could not move a step without trampling on something that we would have given a fortune to transport bodily to our gardens. The welter of bloom in that part of the world, when the country is not swamped by Bamboo, is entirely beyond my power of description. There it is, quite unseen by man, not even browsed over by animals, and rarely harmed by insects.

What more could we want? We were encircled by our hills, each foot of which was new country, for at this time Forrest had not collected on them. Behind us lay the bare ridges and alpine lawns of the frontier, that here took a sudden sweep to the west before continuing on its never-ending northward course, ridges that were packed with nests of boulders and stone screes, gaunt and bleak in their stark nakedness, and between them little emerald-green patches, alive and wide-awake during their short summer. To the east lay the head of the valley surrounded by grim pinnacles, craggier tops than we had yet seen. In front of us lay a great bay in the hills with a long ridge on the skyline ending in a round bummock of a peak, while a little to the west was the great underhung precipice with bluff upon bluff soaring upwards and little precipitous gullies filled with Bamboo, wherever it could gain a precarious foothold. To the west lay the sweep of the valley with the northernmost tops of Imaw Bum as an irregular skyline.

Here we were at peace. We had arrived early enough in the day for the economy of the camp to be running smoothly. The Dragon had arranged his paraphernalia to his liking and produced a noble meal for us, which we ate in the dusk with the flaps of the tent raised. Then

we pulled our chairs outside and sat under the stars in front of a roaring fire of spruce logs, with the gentlest whisper of a breeze in the Spruces and a glow and a murmur from the coolie camp fifty yards away among the Bamboos. In time both died away, and so to bed in the cool, sharp air.

So fine was the next morning that we decided, without more ado, to attack the ridge above us with the second orderly and a coolie in attendance. Our way lay before us up a rocky gully, a twin sister to that above our camp. But such a way, for the gully became more and more precipitous and the rock more and more rotten. We stumbled and slid over the piles of débris that former frosts had brought down from above. Then we held our breath, for there in front of us were rounded bushes of what could be nothing other than *Gaultheria trichophylla* (F. 1191), but not the miffy and miserable *Trichophylla* that you occasionally see in gardens. Here it was, an ostrich among plants, a few inches high, thriving in and obviously loving this elephantine scree of two-foot rocks. Before the gully begins to rise up to the heavens, it scrambles away among the rocks. The amazing thing is where it gets a foothold, for the débris is feet thick. But there it is willy-nilly, and at the time we saw it smothered with its large, bright blue berries. The flower is so small as to be inconspicuous, but the fruit is more than half an inch in diameter. Perhaps it prefers this starvation diet to the richer food we give it in our rock gardens.

It was only when the gully began to imitate a rock chimney that we began to notice the utter malignity of the Chimili rock. In outward appearance it was of the solidest granite, but it was so rotten and so waterworn that it peeled off like slate. We gripped at a convenient pinnacle by which to haul ourselves up. One crack and

it was in our hands. The only way was to line out at a sufficient distance to be able to skip out of the way of falling boulders. We stopped long enough to collect a little starry white *Cremanthodium* (*C. Wardii*, F. 1177) that popped out of crevices in the rocks and carried a single flower set at all kinds of ungainly angles on the top of a stiff 6-inch stem. But for all that it was dainty and attractive. I should like to describe at length the beauty of that curious Asiatic genus of *Compositæ*, but it is time wasted. For these most annoying creatures, most of which are attractive, have the habit of germinating freely in this country. They grow strongly the first season and then die down and refuse to come up again. Seed has been sent home time and again. Nothing comes to maturity; and it is a pity, as they are graceful and lovely plants.

At length, after a gasping scramble, we arrived at the junction of two gullies and lay on a flat rock between them. Later we became used to this gully and thought lightly of its terrors, but we were always left puffing and panting. Below us lay the camp with the tents looking like mushrooms, while Imaw Bum and the mountains to the north raised themselves gaunt and sere against a watery-looking sky. In front we saw where the bluff crept around the corner and opened out into the big bay, through which Bhaju and the coolies were at that moment laboriously cutting a path for our future conquest of the high sugar-loaf beyond.

Little wisps of cloud were wandering aimlessly over the lower valleys and the sky turned an unpleasant steel colour, so we moved while we could. We wandered on up the head of the gully and out upon acre upon acre of alpine lawn carpeted with our dwarf *Rhododendrons* and the little trailing alpine Willow. Sticking out of this carpet were the solitary heads of two new *Creman-*

thodiums, one a golden yellow with long, narrow, drooping rays, like a wispy moustache—this was *Cremanthodium Farreri* (F. 1178)—the other with handsome globular flowers, always hanging downwards, of the purest white that turned to a deep plum as they aged. This was a particular disappointment to Farrer, for the clouds by this time were upon us, and the globular heads loomed out of the mist in such a striking manner against the dark background that he fondly imagined for one moment that here was a wonderful new milk-white Poppy. And here also were all our old friends of Hpawshi Bum, including the pink Anemone in full fruit and the big yellow Primula, but in far larger quantities. For one wild moment we thought that we had found a new late-flowering dwarf Rhododendron, only to find that it was *R. calostrotum* aping a second flower by producing fleshy, sham flowers out of a cluster of terminal leaves. They were almost tubular in shape and quite a vivid scarlet in colour. I have never seen it attempt this odd trick in cultivation.

We felt our way along the ridge, here quite bare of vegetation and covered with great boulders. Our lunch had to be eaten under an overhanging rock in a persistent soaker, that looked as if it would continue for weeks. But the hills willed otherwise, and after this warning the clouds slowly began to lift. We found ourselves actually on the pass with a steep dip below us ending in two marshes at different levels before the final drop to the Salween. With the mist low on the hills the scenery on the Chinese side looked exactly like the country round Loch Shiel, but wilder and more forbidding and absolutely uninhabited. Down the big dip we had to clamber, in case we missed anything in the marshes, that nasty just-round-the-corner-is-something feeling. We crept down the devastating apology for a track only to find

a gentle, dark purple Iris like *I. Forrestii* and the remains of whole colonies of *Omphalogramma Farreri* with seed-pods as big as walnuts. Up we clambered again to the ridge, and down our side of the pass home, stopping pick on the way a coarse, ungainly, greeny-yellow Gentian with fat leaves like the gross *G. lutea*. We reached camp very tired, having climbed 3,500 feet up and then down again. There we found Bhaju in high fettle, for he had shot a mother bear and two cubs under the sugar-loaf. Not only was this a feat, but bears are so destructive to crops that the Government gives a bounty, and he had earned an extra month's pay in five minutes.

After that outing we were not sorry for a soaking day, so thick that climbing was out of the question. Our next move was to explore the bare sugar-loaf to the south-east, an easy accomplishment thanks to the coolies' labours. We crossed the main stream and clambered up a rocky watercourse canopied overhead with Bamboo. This ended suddenly with a smooth wet slab of rock, over which the water poured in times of spate. Up it we had to slither, as the banks on either side were too steep for path-making. The coolies lined out and hauled us up, passing us along from one to the other, the front one pulley-hauling and the back shoving. At once we were all arms and legs; our iron-shod boots slipped and slithered on the slippery rock.

Once on the top we found ourselves at the bottom of the big bay. It was entirely filled with cane brakes in the bottom half, which gave way as we mounted to low scrub and grassy glades where little brooks rolled down the hillside.

In the first of these glades we came across a puzzle that Farrer dealt with at length in the *Gardeners' Chronicle* of March 20, 1920. This concerned a second *Omphalogramma*, which flowered at least a month later, and,



THE CHIMILI VALLEY

although similar in appearance, was visibly inferior to *O. Farreri*—that is, as we saw it. Forrest again found it last year in better form, so it holds out promise as a garden plant. It has now been called *O. Coxii*. Farrer scorned it as an inferior weed, and we did not even collect seed of it. Higher up the Bamboo ceased altogether, its place being taken by a particularly neat and tidy-looking *Berberis*, that turned out to be *B. capillaris* (F. 1399). Oddly enough, Eastern Asia abounds in *Berberis*, and yet we only found two, both of which have turned out to be distinct and first-rate species, of excellent garden value. *B. capillaris* is a bush about 4 feet high with stiff branchlets and smallish, obovate, few-spined leaves. It is shapely in habit, and is doing excellently well in my garden. It is noticeable for the large size of the solitary flowers. They are a rich yellow in colour and are about the size of a shilling, while the fruit is scarlet and nearly as large as a cherry.

Here also were remains of our yellow candelabroid *Primula*, as well as dozens of fat seed-pods of the good *Omphalogramma*. Up the turfed bank of this rill we made our way to the knife-edged ridge that connected the peak at the back of the bluff to the big sugar-loaf. Here we passed the scene of Bhaju's meeting with the bears, and the scene had to be re-enacted for us there and then: how he saw the two cubs waddling towards him round the corner of a boulder; how he shot them and then waited for the mother, whom he guessed would appear; how she padded along after the cubs and was killed ten feet distant. We mildly exclaimed that this was a risky proceeding and that he should have fired sooner. But Bhaju did not see eye to eye with us. He had been taught not to waste cartridges; hence the point-blank range. He had to account for every cartridge: one cartridge, one result.

Here Farrer and I parted, for there were some small cliffs at the base of the ridge that circled round the bottom of the sugar-loaf, and these looked enticing enough with small green lawns at their feet. So I took the high road on top, and he the low round the foot, joining me on the other side. My road was a failure. With the exception of one plant, there was absolutely nothing. The whole of the top of that ridge was a mass of boulders and ancient scree so bare and soilless that no plant could get a foothold. The exception was a colony of two dozen spikes of that queer Rhubarb, *Rheum Alexandræ*. This odd plant has been introduced several times, but has never succeeded in sending up at home its stately spires covered with large, crinkly, creamy-yellow bracts. Here, if you like, is a case of protection. Nothing could have been more bleak or wind-swept or barren than that ridge; yet there it preferred to live, protecting its flowers and seed with those monstrous bracts until the seed was ripe, when they at once shrivelled up, and away went the seed in the wind. It is the only plant I know that has a gabardene protection.

I spent several minutes in photographing it, and then pounded on up to the top of the loaf, where I sat and watched Farrer clambering up the far side. He had found a new Rhododendron (F. 1184), a stocky little plant of 18 inches, unfortunately out of flower, but with neat rosettes of leaves and so even in stature that it filled the gaps between the boulders to a uniform height and rounded them off. It might have been shaved every morning. This was a typical community plant, never solitary, and always rejoicing in the warmth and comfort of its neighbours. The few shrivelled blooms on the ground showed us a typical *Hæmatodes* form with a fleshy corolla, varying from white to rose.

We met on the top and had our lunch under a blue sky with a shrill wind cutting through us. We looked down on the Sabiya Kaw valley, 5,000 feet below us, the huts looking like flies and the road an attenuated thread. High though we were, we were hemmed in by higher tops, and we had to wait until we climbed to the top of the valley on another day before the entire panorama lay at our feet.

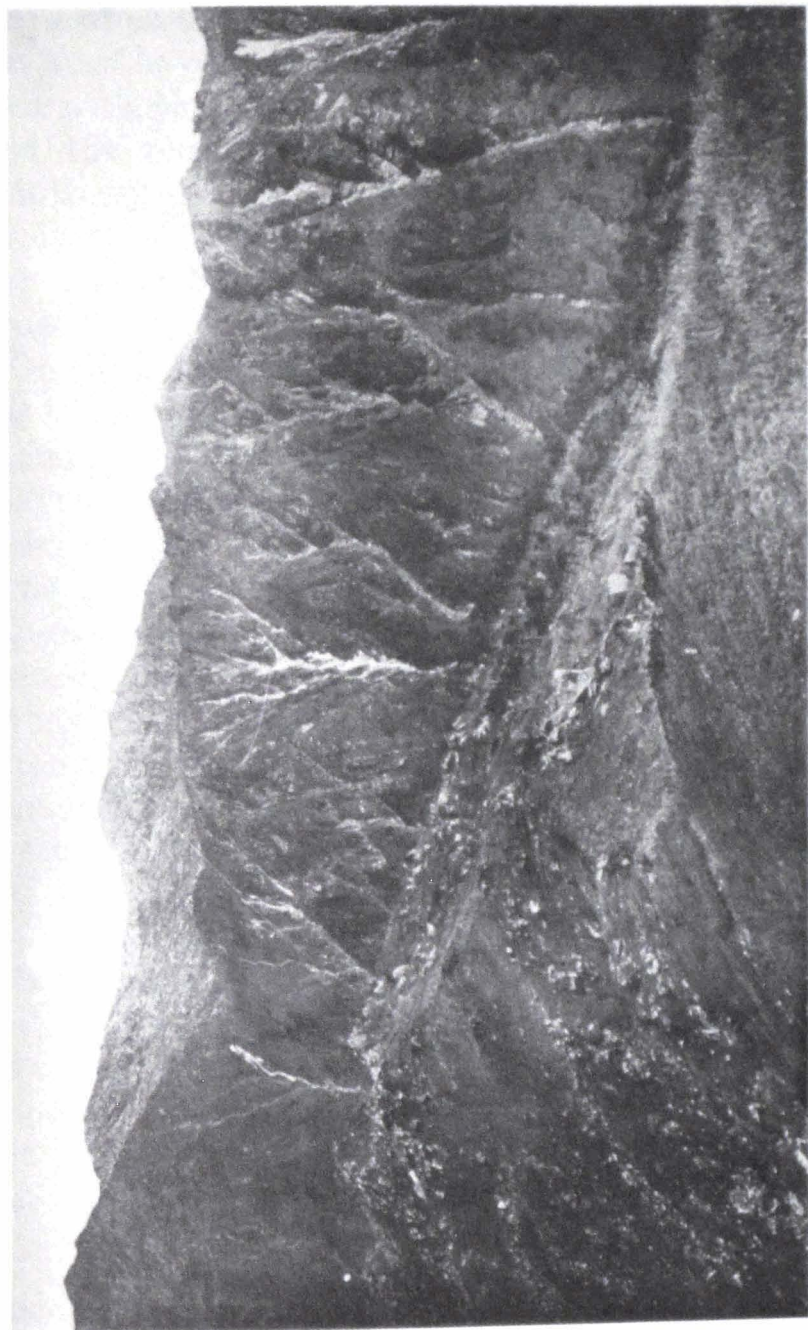
Our return lay down a steep bouldered gully that opened on to a little meadow carpeted with a small blue Gentian of no great value and a tiny *Potentilla* flecked with golden platters. Even now our haul for the day was not complete, for suddenly we came upon vast masses of still another new *Primula*, of course without the vestige of a flower remaining. This belonged to the *Dryadifolia* section, and has since been named *Primula cycliophylla* (F. 1183). So far this section has proved hopeless in cultivation, but this *Primula* is interesting, as well as fine in foliage, for its neat rosettes of leaves that are pushed out from the plant on woody stems. It is a great wanderer, and, where we saw, it crawled in tangled masses among the boulders. We tore up masses of the Gentian and *Potentilla* to plant around the camp, to get seed later, and slid down the hill homewards.

By this time the gods thought that they had been kind to us for long enough, and so sent us a series of exasperating days, brilliantly fine the one moment and with a cold soaker the next. Oddly enough, the worst peltings came from China on an east wind—and this in monsoon time. They really did not bother us much, as the post coolie had brought us two new Chinese umbrellas, and the odd sight was to be seen—if there had been anyone to see—of two white men wandering over the mountains under the shelter of large blue umbrellas. These days were spent in amusing ourselves about the camp. There

were always odds and ends to pick up by the stream-side.

Most disappointing were the rock chimneys. These clefts were excellent examples of the changes that take place in this welter of hills owing to erosion. For in those chimneys there had obviously been enormous rock falls a very few years ago. Great masses of the hillside had slowly become undermined by water and cracked by frost, with the result that they had bulged out and collapsed in a shower of boulders large and small. The inside rock was as rotten as the outer crust and kept tumbling down in slabs as water permeated through the faults. During the nightly frosts in October, we constantly heard cracks and rumbles, then silence for a moment before the final devastating crash as the mass hit the solid ground. Needless to say, such conditions are not congenial to plants, and even weeds leave this kind of hillside alone. All we found was a little rock Rhododendron, extraordinarily late in flowering, that formed a dense cushion of twigs and foliage spotted with flowers of soft, yet luminous pink, freckled with pale, reddy-brown. This perched on ledges on the cliffside that Bhaju and I only reached with the greatest difficulty. So cushiony and springy were these little balls of herbage that it probably cared little how much it was bounced down the hillsides in the usual autumnal cataclysms. It was certainly the only Rhododendron that I have seen that lives on nothing, for these ledges were deficient of everything on which a plant could feed. They were inches deep in rock chips, but that was all.

One day Bhaju received word from Hpimaw that his wife was lying dangerously ill at Myitkina. This was a sad blow, since it meant his immediate departure to see if a journey to Myitkina was necessary or not. He left with a greater look of sensibility on his face than we had



THE GAUNT AND STARK FACE OF THE FRONTIER

yet seen. The Dragon was vastly excited and brought in Bhaju while he interpreted a farewell speech of thanks, that must have been touching in the original, but lost its force with the Dragon's English, which became more lurid the more moved he was. After mutual congratulatory speeches Bhaju departed, and for the next few days Suriman strutted about with renewed importance and bullied the small orderly, which he badly needed.

On the first fine day we made a long trip to a big coll that lay on the frontier to the north of the pass. Here we found the greatest expanse of open space on those hills; even the scree consisted of rocks of moderate size. Farrer was especially enthusiastic over these alpine lawns, where he could trot about with his eagle eye solely engaged in the hunt for plants, as it was the one place where he could set his feet in natural sequence without having to look down at each step. He was a real Johnny-head-in-air on the hunt and suffered more damage to ankles and shins than the rest of us put together. His legs usually looked like a ploughed field; but he cared little. He plastered them with grease, and otherwise left them to look after themselves.

We clambered up the track to the pass and then on to the cairn, that marks the frontier, before spreading out to hunt the lawns as thoroughly as possible. I can do no better than quote his description of this hunt that appeared in the *Gardeners' Chronicle* of May 29, 1920. He says:

“ The last three hundred feet of the Sabiya Kaw Pass handsomely make good any deficiency, and amply compensate one for the long arduousness of the climb, for the lower stages in August are comparatively dull, and superlatively tiring. The Primulas, Big and Little Blue ” (*P. sonchifolia* and *euosma*) “ are long since gone

to bed beneath a sea of Balsams, and nothing is now discoverable beneath the Bamboos but that surf of dark, uninteresting foliage. Down below, in the gullies, indeed, the pearly *Thalictrum* still lingers, and there now appears an *Adenophora* with stumpy bells of a blue so pale as to be merely a whitish-grey; while on the mossy boulders and tree-trunks there glitter here and there the white stars of a most charming little high alpine *Utricularia*, replaced a hundred feet higher, in similar places, always in shallow moss, by an even tinier twin of lilac-mauve, with long tails to the blossom.

“ But otherwise only memories and hopes enliven the climb. Up and up the traveller wearily toils, and, after many a steep, suddenly turns a corner and comes out over a shoulder of cliff on to the full glory of the open meadow, as far as the eye can sweep, one simultaneous riot of colour, laid on, not in dottings and pepperings, but in the broadest and most massive sweeps such as might satisfy the most opulent day-dreams of a herbaceous borderer. The flowers blend by the acre, not by the dozen, or even by the hundred; there are solid furlongs of tender pink *Geranium*, yellow *Globeflower*, crimson *Polygonum*, citron *Primula*, violet *Delphinium*, golden *Anemone*, golden *Saxifrage*, golden, fragrant *Corydalis*, and a soft, pale-blue *Lactuca* like a softened *Cichorium Intybus* with pendant flowers. The whole picture combines in such a vast unbroken blaze of colour that even from far away below, down in the camp, the hillside is seen to be painted all over with an indefinite luminosity which distance is unable to determine. And this is only the broad general picture; dozens of other species give splashes of detail. Here is the azure of *Corydalis curviflora*, and there the purple of a cluster-headed *Aster*, just beginning; dotted all over the slope are the dark clumps and spikes of the pale yellow *Gentian*, while frequent blobs of colour are provided by a very handsome monocarpic *Umbellifer* of two or three feet high, with enormous hen-and-chicken heads of blossom, pink in

their promise and white in the performance. Then there are the pink Garlics, pale blue, thorny Poppies, the dark violet of Salvias, the pendant globular whiteness of the big *Cremanthodium*, and the comparatively plebeian lilac-purple of a *Hedysarum*; with many other beauties, too numerous to conjure and too tedious in the mere enumeration."

That gives you a vague idea of what an alpine meadow of the Burmese-Chinese frontier looks like. It really is one solid mass of plants so common that they are weeds; but such weeds! Oddly enough, in these meadows alone do plants appear to live at amity with their neighbours. Nothing is so exclusive as to try and take control. There is room, and to spare, for all.

From the cairn we had our most wonderful view. Here the range straightened out again and the whole world lay at our feet, the more brilliant in the clear atmosphere of a perfect day with only a few clouds sailing over our heads from China. The frontier range and the hills stretching north of Imaw Bum far away into the Triangle were green and luscious and enticing. But we turned from them with scorn, for we knew that their hearts were black and full of guile, and what looked like mile after mile of enticing green turf was in reality a sea of waving Bamboo. When the sun caught those hillsides they appeared the most translucent green imaginable, but in the shadow their contours became duller and showed a leaden sinuosity of line.

Below us the hillside fell away in jagged buttresses and contortions down, down into the depths of a pit through which flowed the Salween. So far down was it, that the river was invisible but for one little sunlit patch in open country miles to the south. It was in this Stygian valley that the Black Lissus lived; and anybody might excuse their evil ways. That day in the clear

air we saw Yunnan unrolling before us its marvellous panorama of range and valley. No one knows how far we saw; probably a hundred miles, perhaps far further. So clear was the air and so high were we that everything was transmogrified into an amazing sequence of light and shade. We looked over the darkness of the Salween valley below us to the sunlit chequer-boarding of the tilled lower slopes of the range dividing the Salween and the Mekong. Then on and on stretched range upon range until finally they rose up and roofed the world. Nothing in other parts of the world could equal it in its immensity.

Meanwhile the wind began to blow strongly from China and we battled our way down again to the pass. From there we pattered our way along the ridge until we came to the top of our gully, picking on our way pocketsful of seed of the big *Nivalis Primula* that was just bursting its capsules, and also a few seeds of the pink *Anemone*; but this was still too green for the main harvest. And so we reached camp after the final scramble down the rocky chimney, quite certain that we had seen all there was to be seen.

That, for the moment, was the limit of the hills' endurance, and we heard again the usual grizzle and grumble of the weather. Clouds smothered the tops and then swept off for an hour, only to blow down again to see if we had taken the bait and made for the heights. But we were not so easily caught. When fine, we pattered about the camp on our several tasks; mine principally consisted of guarding my plates when they were washing in the burn; for honest as the Lissu attendants were, glass was too much of a temptation for them and they made off with every piece they could lay their hands on. When it came down in blatters of wind and rain, we retired to bed and read or played

piquet. That is the beauty of that life. You are entirely untrammelled, and can do just as you like without feeling the derangement that attacks the system if you are a creature of habit and insist on the day being plotted out in advance.

In that manner we played around for two or three days. Our only excitement was that during a fine hour, when the sun sparkled, Farrer took the air in a chair in front of the camp, and, happening to gaze at the cliff, saw two Takin calmly feeding on a little patch of turf above the big buttress. He beckoned wildly, and, on my running, the camp awoke from its siesta and the coolies began chattering at the tops of their voices. The ungainly brutes at once took fright and bolted; this was not surprising as even a whisper re-echoed from side to side. It was too late to go in pursuit that night, but a search party started off at dawn the next morning and found nothing. Ungainly though Takin are, they push their way at full speed through thickets of Bamboo that would stop a tank. We watched them through our glasses several times after that and came to the conclusion that they were the ugliest brutes made. They are so utterly and entirely roman-nosed that their profile is an arc of a circle. They have the look of contented stupidity of a cow combined with the stubborn ferocity of an enraged goat, while the head is surmounted by a pair of ridiculous horns.

That same afternoon Bhaju returned, much to our relief, with the welcome news that his wife had borne him a son and heir. At once we planned a last long day up to the valley head. However gaunt and uninviting this looked, we could not leave unless we had proved to our satisfaction that we had not overlooked the finest plant of the year. That is the constant dread of a collector in new country, that just around the corner

there lives something far finer than has ever been seen before. If we had worked the range bit by bit up to Tibet and round the corner to Assam, we should have felt just the same. Perhaps, in that, lies one of the fascinations of plant collecting. As it was we missed several plants, among them a wonderful new *Nomocharis* that Forrest collected last year in the Chimili country.

As usual, we used the stream as our path and leapt from boulder to boulder like over-weighted goats; dozens of soakings were infinitely preferable to the tangle of cane thickets. The valley rose by fits and starts. Immediately above the camp was a steep rise that shut off the valley-head from view; then came a succession of marshy flats alternating with miniature waterfalls, the whole being well seasoned with gigantic boulders rolled down from the hills above. Ultimately the welter of Cane and Spruce and boulder died away and we came out on a bare, sere corrie, for all the world like a corner of a deer forest. The bottom was so marshy that it was nearly a lake; but even of water-holes there were none, just a black-coloured burn running through *Rhododendron*-peat hags, so like what we were accustomed to, that we expected to see trout in every little dark pool. I have never seen a stream, however, so devoid of life; not a sign of a fish, not even a water-coachman skimming the surface. The marshes were covered with a little *Caltha*, almost out of flower, and a little electric-blue *Swertia*, of the cleanest tone, was just expanding its friendly stars. Here also we saw an *Iris* absolutely at home. It clustered on the edges of the hags in battalions and crept up the hillsides with a few flankers as far up as the little hollows of the alpine lawns. It was very small, rarely exceeding 8 inches, and exactly like *I. chrysographes* in everything except colour, for

the standards were not so dark and the brilliant sapphire falls were marked with silver. It was a delicate morsel and worthy of a place at home.

We spent several disappointing hours in searching these marshes, that should by every rule of the game have given us a bog Primula or two, a Gentian, and, perhaps, a new Poppy. The soil at the valley head was painfully poor; in fact, if it had not been for the rainfall, the corrie above the marsh would have been nothing but a barren waste of scree and enormous boulders. However, having got so far we were determined to look over the top into China. So up we trudged towards the ridge with icy showers beating against us and had the felicity of lunching under an enormous boulder with iced water laid on, which ran down our backs.

It was on these great lumps that had rolled down the hillsides that we found sheet upon sheet of our two baby Primulas, *P. moscophora* and *P. coryphæa*, surely two of the tiniest plant-morsel that exist. Farrer wrote about them at great length in the *Gardeners' Chronicle*, and was so enthusiastic that he prophesied a great future for *P. coryphæa* (F. 1058) in our gardens, a prophecy that has, alas! not been fulfilled. Nor do I think that it will ever become a wilding as he fondly imagined, however often it is introduced. I have tried in Appendix A to explain my views on what constitutes the loose term, "hardiness" of a plant; so I need not repeat my theories here. I knew so little in those days, that I was totally unable to give an opinion; but in the light of added experience I feel that Farrer let his enthusiasm run away with him, not in his descriptions of plants, but in his constant arguments that the climate of the Hpimaw Hills differed little from that of Westmorland. Very occasionally the summer climates may be approximately the same; but that is not the point. What is important

is that the summer rains in those hills vary little owing to the monsoon. However much they may suffer in India from a weak monsoon, these hills form a catchment area that functions perfectly and with unfailing regularity.

Farrer states correctly that *P. coryphæa* was more variable than *P. moscophora* (which he called *P. bella*), and that the poorest form of the former was equal to the best that *P. moscophora* could produce. He also pointed out that *P. coryphæa* always grew on flat rocks, or on fairly level ground, whereas *P. moscophora* hung down in perpendicular crevices in the rocks. To my mind that is just the reason why the latter should succeed better in our climate; for the area of the plant exposed to mist and rain is less, and so the moisture is not so important for its well-being. In fact, whatever people may say to the contrary, many of the Asiatic Primulas are among the most difficult plants we possess; some of the Nivalis and Muscarioides and all the Sonchifolia, Carolinella, Petiolaris, Soldanelloides, Bella and Dryadifolia sections are not among plants for ordinary gardens. Some day we may learn the trick of cultivating them. So far the only road to even moderate success is to eschew pot culture. Every seed should be saved and most of them should be treated as annuals.

On the top there were large hassocks of the Dryadifolia Primula, more high-alpine and more luxuriant than anywhere else, and more attractive with the mealy white undersurface to its corrugated dark-green leaves, but obviously a shy flowerer and an even shier seeder. There was also a snow-white Leontopodium, so like a cleaner and whiter form of our common Edelweiss that nothing will convince me that it is not the same after a dry-cleaning. There were two more treasures, a form of *Aster alpinus*, a many-rayed purple star with an orange eye that stared up out of the bleak turf on little

3-inch stems, a cheerful and gay little plant, and a *Cyananthus* with flowers of the richest and most velvety of blues. It trailed about in the long grass of the little hollows and clefts between the boulders, with dozens of rich stars pointing at every imaginable angle from beds of tiny leaves. All the *Cyananthus* species are attractive, loose-growing carpeters, so graceful, and of such a rich blue—there is only one yellow species—which seems to suit this campanulad genus to perfection, that it is surprising how little they are grown. It is true that they sometimes disappear in the winter; but they are not really difficult and come easily from seed. In addition they make plentiful, though straggly, patches that are soon decked with their periwinkle flowers.

Just below the ridge the *Cyananthus* grew in innumerable patches among the boulders where we cowered from a sleety blatter and chattered with cold and stamped our feet to get warm. In its usual feckless way the mist gave a flicker and shot across to the next range, leaving us gazing on the wildest scene that we had laid eyes on. For there in front of us was a semicircle of bouldered slopes caught in by three gaunt, black peaks; and down at the foot lay the only tarn that we found in the hills. This was no overgrown marsh, as it had a shingly beech and jet-black water. Our coolies scanned the slopes with eyes like hawks, since this was a noted watering place for Takin and wild Sheep and Bears. Apparently the Sabiya Kaw Lissus organize regular battues and consider that grim scene of black rock and blacker water as a happy hunting ground. Disappointing though it was, we had seen what we had set out to explore, and so we were satisfied.

That was our last day's hunting. The flowering season is of the shortest at those heights, and by August 18 everything hurries into seed and is already

settling down for the long winter. The next two days were spent in dodging the showers and rushing about in the valley collecting the first-fruits of the harvest. Drying racks were made out of Bamboo and the chokra stationed by them with tarpaulins with which to cover them on the slightest approach of rain. By their side hours were spent in husking and winnowing and cleaning. The turquoise *Gaultheria trichophylla* was the most troublesome owing to the pithlike flesh that stuck firmly to the seeds. We set to and washed them, and appeared, at the end, with cœrulean hands and arms.

Our last evening, perversely enough, was our best, for the last flicker of cloud floated away and we sat under the frosty stars with that heavenly feeling of contentment that comes from perfect air in the hills. There is a little fable told by one of the hill tribes about the brilliance of stars on a frosty night. As far as I remember it goes something like this:

HOW THE TIGER AND MAN BECAME ENEMIES.

Many, many years ago the tiger and man were the best of friends, so friendly that they lived together and were great playmates. One day, on the approach of the rains, they decided that they would both build houses to shelter their families. The tiger, who was hard-working and energetic, soon finished his; but the man was a lazy scoundrel and could not be bothered putting on the roof. After a little thought he invented a wonderful plan. On the first frosty and starry night he rushed in and woke up the tiger, begging him to come and see the most extraordinary thing that had ever happened; somebody had studded his roof with precious stones and these glittered magnificently. The tiger, who must have been a simple-minded individual, went along and was duly impressed. The man, full of guile, then suggested an exchange of houses as a mark of

esteem on his part and as some slight reward for all the tiger had done for him. The tiger accepted gratefully. That night the rains began. Since then the tiger and man have been furious enemies. The moral is that all is not gold that glitters.

We sat out in our little courtyard basking in front of an enormous fire and listening to the babble of the water and the faint swish in the trees. A coolie came up to throw on some more logs, and then squatting down produced one of the curious little Lissu musical instruments, entirely without a name and absolutely undecipherable. They are like three tiny bamboo fingers with a section cut free in the middle and only joined by a tiny bridge at the one end. From these they produce a plaintive twanging when they are warmed by the breath and struck with the fingers, so plaintive and soft that it is fairy-like. These he proceeded to twang. One by one the other coolies crept up and squatted in the fire light. Slowly they began to hum little snatches of song. This increased in time until a general chorus was in full swing, when they suddenly rose and started to dance in parallel lines on either side of the fire. It was a regular country dance; apparently one side represented the boys of a village and the other the girls. One would sing a verse on three notes and then his side bobbed and sang the chorus, doing a slow and rhythmical heel and toe step at the same time. Then the other side took up the verse and chorus in turn. As Farrer said in a letter:

“ It was *the* most wonderful Rembrandt picture in the flickering red flare, those chanting faces up against the blue velvet of the alpine night. Talk about Russian ballets. This was the real thing untouched and unadulterated; nothing stranger has ever been seen before. There was real art in it too: the dance (several a side

with fingers locked), was an elaborately rhythmical heel and toe movement with queer little demi-quaver pats at intervals; the song was in answering choruses, with a solo refrain. It did not seem to mean much more than 'Nuts in May,' but had real harmony and measure."

We sat up for hours attending this farewell entertainment. Nothing could possibly have been better stage-managed. Armchairs in the stalls with a perfect velvet vault overhead, a bonfire, yards round and feet high, as footlights, an unobtrusive and unsophisticated cast, and air as sparkling as champagne. It was a perfect performance.

On the next morning the packing went smoothly with the coolies helpful as well as inquisitive. With a soft wind and a blue sky we left our glade for Sabiya Kaw, and not without sad hearts. Down the stream we went, up through the cane brakes to Jungle Camp, and so down the long wooded gully to the valley, where we found Ma feeding on the best of the land, oozing fat and not even deigning to look at us. Even on the journey down we managed to collect twenty-nine specimens. At Sabiya Kaw we forgathered with our friend the Akiwa and were duly scandalized at the ridiculously small amount of the bill for portage. And so, with many kind farewells, we departed for Hpimaw, which we reached two days later, finding on the road all the sick miraculously recovered and fresh batches clamouring for medicine. On this trip we had added 122 specimens of different plants to the bag and had already collected seeds of twenty-five species.

CHAPTER VI

THE HARVEST

THAT was the end of our hunting. All that we had to do was to garner the harvest. On our return from the Chimili we found that we had timed the weather perfectly. No sooner were we settled in our bungalow again than the second act of the rains opened with consistent floods and marvellous lightning effects. It appears that the Hpimaw basin suits certain kinds of cloud. These come up from the Bay of Bengal, helped on by the monsoon, and then, squatting on the rims of the hills, remain immovable. Nothing remains but to turn on the taps, and the Hpimaw valley takes on the appearance of a leaky bath. Night after night various thunderstorms perched on the top of Imaw Bum, Hpawshi Bum, and a high hill to the south, and there they sat spitting at each other and very talkative, exactly like three gigantic cats in a London cat-run. When the concert was at its height there was little sleep for us; so we used to patrol the verandah and watch the really magnificent lightning that bridged the peaks and lit the valleys with a ghostly but metallic radiance.

Those were peaceful days, when we moved little from Hpimaw. There was plenty to do what with painting and photographs to be developed, and above all with the constant drying of specimens in our effort to keep off mould, and our ceaseless search for maggots and woodlice that lived among the more fleshy plants in such numbers that not even a copious sprinkling of naphthalene could keep them in check. We had all kinds of

little excitements such as the arrival of the weekly mail, often days late owing to damage to the road by the side of the N'mai. Then the Dragon over-indulged himself again. As Farrer said:

“The cook, having taken the pledge (and kept it) ever since his late disaster, was so overcome with joy at getting back to comparative comfort that he once more flew to the bottle and for three days was so loquacious that at last, his bout having again landed him in hospital for a day, I called him up to the verandah next morning before all the staff, and there, with all my tremendous thundering majesty, administered a salubrious allocution, at the end of which I handed Cox six rupees off the culprit's wages, to be then and there hurled away over the edge, down into the uncharted labyrinths of the jungle. You have to do this, otherwise they only think you are collaring the money for yourself. This produced a huge effect: and that night, when a sad, sombre figure came creeping through the dark for orders, my gravity, in all senses, was most grievously imperilled by being passionately clutched round the knees and bedewed with a convulsive fountain of tears.”

In addition, we had the felicity of having a theatre to go to every night for a week, had we been so inclined; for about this time the Ghurkas of the military police held an important festival with interminable turns that went on from dusk until far into the small hours, when all homely people should have been long abed. As it was, we were invited officially on two occasions and attended in state for an hour or two. Most of the turns consisted of endless dances or libidinous songs, of which we did not understand a word. There were three dances, however, that I remember, one a shepherd's dance with a full-fledged shepherd and a monstrous sheep that

butted Farrer with great glee, much to the amusement of the onlookers. Another would have been charming, if only the dancers had known their parts. This was the Limbu dance, with complicated steps, symbolical of sowing corn. The third was quite excellent. This was the Mandali dance, where two men dressed in long voluminous black gowns with white kerchiefs round their heads danced beautifully in slow steps, while two others played tomtoms. Our gravity was sadly endangered, however, when the Dragon appeared on the scenes and waltzed slowly around the performers with an awesome austerity of countenance.

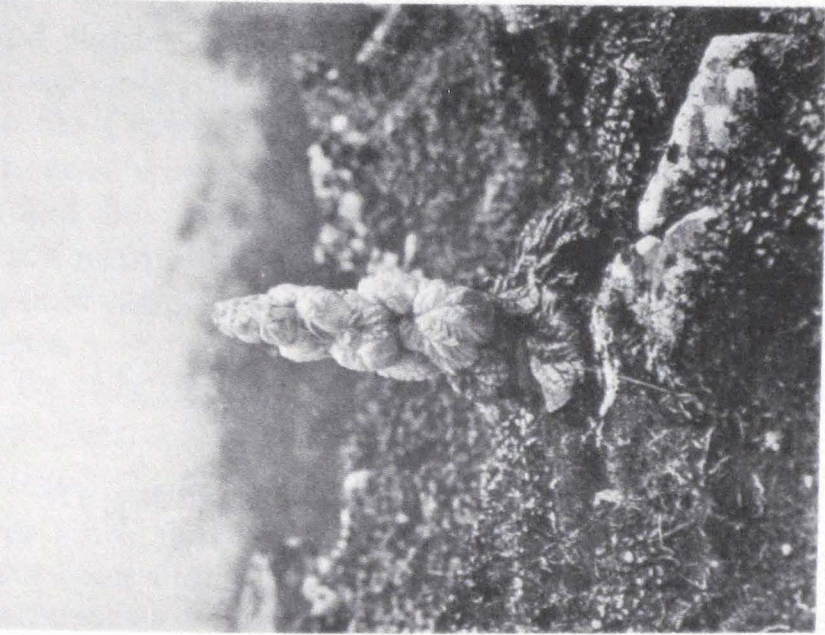
After a week's peace we decided to play hide and seek with the weather and make a bolt, three days' journey to the south-east, to the Fung-shwe-ling, which, being translated, means the wind-and-water-pass, an apt designation. It began to rain, of course, the moment we left Hpimaw, and our walk along a native short-cut turned into a series of slithers. All the same, it was interesting; for what appeared to be dense jungle from the fort above turned out to be a rolling valley with swaying fields of maize on the slopes and little marshes in the hollows. The first stage was short. The hut at Likum sat on a little knoll that looked out over a sweeping wooded valley. The rain cleared off and the dusk was perfect with bright moonlight and bands of cloud circling the hills, while the air was deathly still, such a peculiar feature of the few hours that elapse between bouts of rain.

Next morning it was as thick as ever. In a few yards we entered the densest jungle we had met with. In the mist the light under the canopy of trees was darker and more deathlike than in the dimmest and most mouldering of churches, while pervading over all was a shrill, dank smell of stale water and rotting vegetation,

the very memory of which, even after six years, stinks in my nostrils. I have seen many jungles, but for sheer lifelessness I have never met any the equal of that valley. The air was raw, and the sweat was not the healthy one of overheating, but cold and clammy. In the middle of that gigantic thicket, that stretched for thirty miles, lay the second bungalow, a tiny bamboo hut in very bad repair and filled with innumerable bees. The only plants that seemed to flourish in that sticky black soil were gigantic *Arizæmas* and two *Primulas* so gross and coarse of foliage that we thought that nothing of that size had ever been seen before and that they must have been new. However, they turned out to be nothing more startling than *P. helodoxa* and *P. Beesiana*, grown monstrously large and cabbage-like in the black soil and damp air. The leaves were 14-16 inches long. What with bees and the consistent rain that tumbled on us for two days, we decided to give up the fight and return to Hpimaw. That game was won by the monsoon; for the moment we left it began to clear and we reached home in brilliant sunshine.

On September 19 we began a round of festivities owing to a visit of four days from Clerk and Kingdon Ward, the latter having strolled over from the far side of Imaw Bum to see how we were progressing. Never was there such talk and such opening of bottles and tins. The Dragon was worn to a bone concocting the most succulent dishes.

Once our visitors had left, we settled down to the serious work of the harvest. Each day gave us something fresh to collect. The herbaceous plants were the first to give us ripe seed in bulk, and a merry day we spent on the pass filling envelopes and tins, and finally pockets, with *Corydalis* and *Nomocharis* and *Anchusa* and *Clematis*. Even so late as September there was some-



RHEUM ALEXANDRIÆ



CREMANTHODIUM FARRERI AND
PRIMULA SERATIFOLIA

thing new in the way of bloom. Not only did we find a little flat-faced yellow Rhododendron (*R. monanthum*, F. 1343) in the second time of flowering, sprawling by the pathside, that we had somehow missed earlier in the year, but also two *Crawfurdias*. Probably few have heard of this genus, which is sadly neglected. I have never seen a single plant in cultivation, chiefly, I suppose, because it is Asiatic and flowers so late that no collector is ever in the field when the seed is ripe. A *Crawfurdia* is another name for a climbing *Gentian*. They crawl in charming fashion over old tree-stumps and branches. The two that we found in thin woodland on the way to the pass were extremely free flowering, in shape like a small and narrow *Gentiana sino-ornata*, one chocolate and plum, the other a reddy-lilac, but the gem was a third that we found in November on our way down country by the Ngaw Chang where it sprawled in masses over the brushwood on the hot dry banks. The shape of the flower of this species was like a wider and shorter *G. Farreri*, of the most lovely salmon-pink imaginable; it is odd that two such amazing colours as the *Crawfurdia* and *Luculia* should live together in an area where flowers are few and far between. It would be worth sending someone specially for them. Such autumn waterfalls of colour would be invaluable in cultivation, even if they were only grown in a greenhouse.

By this time Farrer was busy making plans for the next year. He wrote to one of his friends :

“ We got back from the Chimili a month ago, and ever since, but for one abortive rain-drowned *ausflug*, have been sitting here quiescent through a long, tedious recrudescence of the Rains—which are now, I do believe, and hope and trust, towering to their final climax. At least, I hear that kites (the bird, not the plaything)

are now once more to be seen flying over India, an immemorial sign that the monsoon is nearing its end. When it attains that blessed bourn, and October brings the clear, cold weather of autumn, I hope to be back at the Chimili for seeds of our various treasures. Of these I have already told you the gorgeous tale, and besides, for a dispenditure of sixpence, you can follow the fuller account in the *Gardeners' Chronicle* unfolded in the Master's happiest vein of racy prattle, to the weekly enthrallment, I am told, of thousands.

“ I am something in suspense, just now, for apparently the Fort Hertz authorities are so busy road-making, and all their labour so monopolized, that my proposed advent terrified them into fancying that I wanted thousands of coolies like any Pharaoh, and marble halls built for me at every stage, with hot and cold water laid on in crystal baths, with the result that the Master knocked at their doors in vain, and was actually refused ! But now I have readjusted matters and arranged for mule-convoy, so that I hope that all may be well after all, and my visit to the remote and marvellous wildernesses of Akhyang assured. Meanwhile, I am brewing a yet more marvellous venture for 1922-3, something officially quite unavowable. . . .”

His plan was to collect in Upper Nepal, which would never have been allowed by the Nepaulese Government.

After days of dashing about as seed ripened, we found that everything was empacketed except the Rhododendrons, which would take another month yet. On October 9 we were off again to the Chimili. We found Clerk at the Jungle Camp and we spent a pleasant evening in front of a roaring fire while Clerk's Kachin interpreter told us folk-tales. His parable of the war, although from down country, where the people are more sophisticated, had some point :

THE PARABLE OF THE ELEPHANT'S DOWNFALL.

Once there were a brace of Hoopoes that were much beloved by all the beasts owing to their good temper and kindness. One year they happened to have a nest close to a jungle path. One afternoon father Hoopoe saw a Tiger limping towards him and with his long beak removed a nasty thorn from his pad. In gratitude, the king of the beasts begged the Hoopoe to call upon all animals to help him, if he or his family were ever in trouble, and his call would never be in vain. Now shortly after, a rogue Elephant on his way along the path stumbled and smashed the nest of the Hoopoes. They complained bitterly, and his only answer was that small animals should get out of the way. Then the Hoopoes called for help and all rallied to their assistance. Here is what happened. Two Horse-flies flew up and bit the corner of the Elephant's eyes; two Crows came up and pecked at the sores; two Blow-flies laid their eggs therein; two Ichneumon-flies plastered up the sores, so that when the maggots hatched out they ate their way into the Elephant's eyes and blinded him. He stumbled on unable to see, until at length two Frogs stationed themselves in the middle of the path where there was a precipice at the side, and the Elephant, fearing that he would become bogged in a marsh, stepped over the side and was killed. "Now," said the interpreter, "as far as I have heard, that is what happened to Germany. It was the Elephant who crushed inoffensive nations. Then all others combined against it and it was overthrown."

On the next morning we parted, Clerk away down country and ourselves to our Chimili camp. What a change! for here we found winter almost upon us. The high tops were already bedded down with foliage brown and sere. The green of the herbage and the rainbow tints of the alpine meadows had disappeared, leaving

the russets and yellows and browns of late autumn on pleasant slopes where we had lain sniffing the scents and marvelling at the colours only a short six weeks before. The streams had dwindled to the merest trickle, and we walked dryshod where previously we had to leap from rock to rock or wade through the pools.

On the last corner before the camp, on a shingly island, were tufts of the new autumn-flowering Gentian, whose closely knit clumps of foliage we had noticed on our last trip. Much as we had hoped for a fine plant, we were totally unprepared for its amazing beauty. Farrer was right when he said that he would have called it the most beautiful Gentian he had ever seen had he not previously set eyes on *Gentiana Farreri*. It was, indeed, extraordinarily like *Farreri* on a slightly smaller scale. It had, however, different markings on the calyx and was of a different colour, more of a true sky-blue. It kept very much to the shingle beds of the stream, where it opened and shut its blooms with extreme rapidity as clouds swept over the sun. It was tentatively named *Gentiana Coxii* by Sir Isaac Bailey Balfour. It amazed us how this plant ever set seed, as every night the ground was white with hoar-frost and there was a complete absence of all insect life. Perhaps it may ripen seed once in every ten years, but I am sure not oftener. It is more likely to be propagated by having pieces torn off it during a summer spate, which lodge on any convenient patch of shingle. This, I think, is proved by its constant recurrence on the tiny islands and gravel beds up and down the stream. Though we collected no seed, we sent home plants, which have apparently disappeared.

There is nothing so wonderful as the high hills in the first flush of autumn. The frosty air seems to lick the outlines of the peaks into shape with a consequent

hardening of line. In the Chimili everything seemed to crystallize in the keen atmosphere. The smoky haze of the rains had disappeared, leaving each individual point picked out and so clear that we could see ten miles to every one in August. After the damp of Hpimaw we felt that we could run up the hills and then run down without puffing. The air was free again, and we could breathe and expand and feel refreshed.

The moment camp was set we started to work, while Bhaju superintended the erection of a further battery of racks for seed drying. There was sufficient in the valley to keep us employed for two days and then we worked up to the valley head. It was on our way up that we fell in with Miss Georgiana Grunts, who requires a full introduction. Here is Farrer's description of her in a letter home:

“Our family has recently been enriched by a Panda, but this must not provoke misconstruction. A Panda, it appears, is a little beast like a tiny, tiny baby bear, with a banded ginger and orange bottle-brush tail like that of an unappeasably furious Persian cat. Never was there anything so engagingly lovely; with Marion-Terry-hair-coloured body, all one ball of mahogany fluff, deepening to dead black down his little bandy legs and over his belly, while his black-hemmed ears are full of tufted white fuzz, and his beady eyes and snout are also set off with white. We found him under a high-alpine rock awaiting his mamma; and his squeals on being captured would have shamed ten steam engines. ‘Mr. Grunts’ however, is now completely tame and happy, and walks about all over us quite impartially, preferring above all things to perch on the dome of our sun-hats, whence he perkily surveys the world like the eagle on a Kaiser’s helmet.”

That was written some time later, but it was only a month after capture that we found out she was a lady,

when she was finally christened Miss Georgiana Grunts. Although she screamed consistently for a whole week after capture, and bit and scratched on the slightest provocation, yet she was finally tamed with the help of condensed milk, for which she had an inordinate passion. I have never heard it stated anywhere that a Panda has a large variety of noises at its disposal. Georgiana, once she was tamed, showed her moods by certain easily read signs. When angry, she grunted like a piglet; frightened, she screamed; bored, she chattered away to herself; pleased, she let out a curious elfin whistle. Pandas may not make such an array of noises when shut up in a cage, but Georgiana was most talkative and soon won our hearts. She came down country with us very cheerful and quite contented to sit in her own basket with an occasional airing on the top of our helmets. We made elaborate preparations for her homecoming. She was to remain with Bhaju in Myitkina while we visited Mandalay, and the second orderly was to bring her to meet us in Rangoon. Alas! she never got that far. She died in Myitkina from some skin disease.

We spent a busy day collecting in the alpine lawn above the pass and garnered such a harvest that everything was filled to the brim, pockets, every envelope, the collecting tins; even our handkerchiefs held bundles of the prickly heads of the *Meconopsis*. So busy were we that we reached camp after dark with the help of a lantern. Our best day was spent in the big bay to the south, as here alone among the high places there were big sweeps of autumn colour. Finest of all was *Berberis capillaris*: thickets of this most excellent of shrubs were ablaze with leaves that had turned every colour of russet and crimson and scarlet. In that bright sun these sheets of brightness shone with a refulgent blaze, all the more startling from the surrounding drab of

withered Bamboo and sere grass. Two other brightlings also charmed us, two dwarf Mountain Ashes, little morsels from 3 inches to 4 feet, whose leaves had turned to a golden-straw and whose branches were laden with coral and crimson berries. Cold it was in the crystal air, but we moved fast enough to keep the blood tingling.

Then another day was spent at the top of the valley collecting *Cyananthus* seed. The valley-head was in thick mist, but from the top we could see the Salween valley bathed in golden sunshine. That was our last long day. After each blatter the highest ground showed up whiter and whiter, until at last we realized that winter was upon us, and the high places were finished for us. The Chimili is one of the places that I should like to see again.

On the way down we cut down our young Coffin Tree and collected several pounds of seed. We also found still another tree *Rhododendron* in fruit, which has turned out to be *R. glischrum*, which is already in cultivation and is one of the hardiest of the big plants. At Sabiya Kaw we had a last farewell party. I photographed the Akiwa's two wives and we bought two of their hunting bows and one of the niggly little twanging instruments. Then down the valley again, gathering on the way the seeds of the *Gloxinia* *Rhododendron* and the Lilies. The only excitement was when I fell into a hornet's nest and got badly stung; the chokra, who was with me, did a quarter of a mile in record time. And so back to Hpimaw.

In the midst of cleaning and packeting the seeds, a long and tiresome job, two more trips had to be made. On this occasion Farrer and I parted company; he went off again to the Fung-shwe-ling after a marvellous *Cypripedium*, of which Kingdon Ward had told him that the flowers were so large they would hold a baby's foot. While he was away, I made a dash for the top of Hpawshi

Bum for a second supply of the high alpiners. I was not surprised to find that the tops at 12,000 feet were completely lifeless by November 2. The snow had disappeared for the moment, but winter was all around me. All seed had scattered to the four winds days before, and I returned with a miserable harvest of seed of Juniper and of *Rhododendron crassum*. The second day on the top was glorious, and for the first time a view was possible from the top of Hpawshi Bum. The Salween was entirely cut off by what looked like a gigantic slag-heap, but the view to the south-east over the Fung-shweling was marvellous. The hills in that direction in themselves are not very interesting; they rarely top 8,000. What was so extraordinary was the number of ranges. I must have seen twenty or more, one beyond the other, like oily billows rising from a sea of green. The last night I spent on Hpawshi Bum was so cold that the water froze inside my tent. I rose early and by noon was eating my sandwich while sitting on a bank watching the Lissus cutting their rice patches, so sudden is the variation in temperature: at 12,000, 25 degrees of frost; at 4,000, the tropics. Farrer returned a few days later after a most successful trip in lovely weather. He succeeded in gathering plants of the *Cypripedium*, which did not survive the journey home, and seed of several *Rhododendrons* and *Primulas*.

Our last fortnight began with a whirlwind of packing seeds and specimens. We were hard at work from first thing in the morning until last thing at night; for packing hundreds of packets of seeds and writing labels for each packet is no light task. At last it was finished. Word had reached us that the first store convoy of the year would carry back our equipment; all we had to do was to twiddle our thumbs until its arrival. A wire came to say that a hundred mules had left Htawgaw

on their way north; they reached Hpimaw village, when down came the last torrent of the year, 11 inches in sixty hours, which was much the worst soaker of them all. At length it cleared, and by noon of November 18 we were on our way down country, only stopping to pick seeds of a few plants between Blackrock and Htawgaw, and specimens of *Rhododendron Kyawi* (F. 1444) in fruit, that we had missed on the way up.

That is the tale of Farrer's first year in the Burmese Alps. As plant collecting goes, we had experienced a successful season without having to undergo much hardship, some bad weeks during the rains excepted. We had thoroughly worked the neighbourhood around Hpimaw and had collected about seven hundred specimens. I know that I loved every moment of it, and I think that Farrer did so too.

At Myitkina we returned to civilization again. There we met Kingdon Ward, very weary after his season on Imaw Bum. We journeyed together to Bhamo and spent five halcyon days in sailing peacefully down the Irrawady to Mandalay, where we spent Christmas. Farrer came down with me to Rangoon, where we reluctantly parted, he for his bungalow at Maymyo and I for India on my way home.

PART II
THE SECOND YEAR

CHAPTER I

MAYMYO AND THE JOURNEY NORTH

FARRER retired to Maymyo, after leaving me at Rangoon, to recuperate and collect strength for his next dash northwards. He took his plant-hunting seriously, so seriously that the months spent in the hills were for him not only a severe strain physically but also mentally. This is no exaggeration. Perhaps others do not realize the work that is entailed on a collecting trip; they can imagine the joys of the open-air life, when the weather is kind, and can share the wild enthusiasm over the first sight of a plant of the worth of *Gentiana Farreri*, but they cannot realize—and after all why should they?—all the harassing little worries that always crop up on a trip that has the collecting of something as its main object. Flowers are, perhaps, the most trying of all things to collect, for they wait for no man either in flowering time or at the harvest. There is no courier or hall porter at the Ritz to map out your day's sightseeing for you; you have to do all the staff work yourself. Routes and dates have to be planned weeks or months ahead. Specimens must be seen to, seeds cleaned, and the field notes written; and above all you are in a constant tremble of fear in case you have missed anything important. A minor horror is the spectre in front of you that all the flowers that you have toiled up mountains to collect have already been introduced from elsewhere, and may be blooming in a Tooting garden. Of all the fears of the collector these are the most insidious. Once they appear like a speck on your mind they grow and grow until

they entirely fill your horizon. It is often impossible to tell if a plant is new or not until your specimens have been critically examined in a herbarium at home. At the first thrill of discovery you are sure that your find is far more marvellous than anything ever seen before; then doubt slowly creeps in, and you will see either a real or an imaginary resemblance to something you have seen elsewhere and this will remain as a fixture in your mind for months.

No father ever felt more keenly for his family than did Farrer for these children of his. They were at once an infinite pleasure and a trouble to him, since, in addition to his passion for collecting, he was intensely anxious to satisfy his shareholders at home.

While at Maymyo he kept very much to himself in his little bungalow, where for two months he spent a peaceful and contented life. He worked during the mornings on a novel called "The Empty House," that will never see the light, and in the afternoons wandered about, no doubt with his head in air and his hands clasped behind him. In one of his letters he describes a visit to Mandalay:

"In Mandalay you walk for ever and for ever, sweating in streams and never get there. The Hill dominates the town, and is a congregation of huge pagodas, but they are roofed with corrugated iron and the effect of the whole Hill is that of some dummock in the Bavarian highlands, roasted over with chateloid great hotels. None the less, of course, it is a holy place. . . . In any case, sated with Mandalay, I proceeded up here in a motor and found the loveliest place in the world, so like Ascot that one hopes to meet one's friends around every corner, but with a winter climate always blazing and never burning, always radiant as diamonds but never nipping. It is 3,000 feet up on a rolling plateau above

the grilling plain of Burma and is the official health spot. To my amazement I found the chance of a house to let here just for the two months that I wanted: and have now for that space of time been ensconced in a high wooden bungalow, surrounded with beds of Violets, and baskets of Roses and hedges of Sweet Peas. . . . And now in two more days I go right up north, I hope, away over the Back of Beyond, out across the last lone edge of Nowhere. There has been (indeed, I have not yet heard of its being dissipated) an *awful* alarm about not being able to get mules: if this proves solid, home I shall have to come, dishonoured and infertile. However, I refuse to face despair until I have to, and trust that two months hence may see me established in untrodden Alps."

There was no Mr. Los or Mr. Lis at Maymyo with whom he could pass the time of day; in fact, he mentions no one in his letters. While I was in India his letters dealt mostly with questions of stores and his plans for the coming season, but the few references to last season's plants were gloomy, for the news from Edinburgh about them led him to believe that many of our greatest treasures had been known for years past. He had received a letter from Sir Isaac Bailey Balfour to say that all the plants had arrived dead, and that the specimens, as Farrer wrote, were all

"higgledy-piggledy in a pie of hay, with their labels lost, and nobody able to tell t'other from which."

This was an exaggeration, for some of the Ferns and Orchids, and a plant or two of the sky-blue tuffet Gentian, and the aroid bulbs survived the journey, although it was a sad disappointment that *Primula sonchifolia* and every one of the Bamboos had departed this life, obviously owing to the heat of the

Red Sea. The specimens, too, were not irredeemably mixed.

To Sir Isaac he wrote:

“ I lay wakeful ‘ some ’ last night, over your letter of yesterday; but as the Scriptures say, and Emma found, ‘ Joy cometh in the morning ’—not so much joy, in this case though, as a slight modification of gloom. It is a tragedy about the plants: you could not tell me if I could have averted it by packing them either more or less damply: however, in no case shall I repeat the lamentable experiment, since this year I shall be so much further from even the railhead. Dear me, you almost tempt me to discover a perfectly loathsome little new inconspicuous weed in the back garden, and describe it as *Balfouria, novum genus!* The ‘ *spretæ injuria mentis* ’ could no further go.”

A typical Farrerian ending.

Here is Sir Isaac's reply:

“ Here is another criticism which I hope may not have the direful effect of a preceding one: our Plant Propagator tells me that of all the seeds that have come to him from collectors in the East those from Mr. Farrer have given him the best results—always the densest and most satisfactory brairds! *Voilà!*”

Towards the end of his stay he felt much more cheerful, and at the finish of a letter to a friend, he added:

“ I am really very domestic at heart, so acute is my rapture in this new little home of mine, though it be but the merest ordinary bungalow. But it sits among Oaks and Cypresses, and all about it are blossoming beds of Violets and fragrant Roses wave lovely heads. No such winter-spot or climate was ever invented. The strawberries are ready in March, while the green peas are already in full swing.”



OUR NEW ORNATA GENTIAN



PRIMULA MOSCOPHOVA TOGETHER WITH A CASSIOPE

While at Maymyo he used to visit Mandalay occasionally for the day, and on one thrilling occasion he, as a Buddhist, was allowed to see and to hold in his hand a relic.

“I had,” he wrote, “a shattering experience just before I left, which you will appreciate. For I not only saw, but actually had in my hands, the oval crystal reliquary in which fragments from the pyre of the Wholly Perfect One Himself had lain inviolate in the ruins of the vast golden Pagoda in which Kaniskha the Emperor enshrined them nearly 2,000 years ago, in a Greek wrought casket of bronze, that was never touched again until, in 1910, the ruins of the Dagoba were discovered and explored. The unutterably Holy Thing revealed lying, as it had always lain, in its secret chamber. All the feelings about relics *may* be mere sentimental snobbery, but it does give you strange feelings to have between your own fingers that gold-bound little drum of crystal, sealed at both ends, and to see inside the little papery kafuffle of whiteness and ash, that actually, in its time, was part of the mortal Epiphany of Gautama Buddha; the one first-class relic in the world, of whose authenticity there cannot be a shadow of doubt, seeing that the ashes were most carefully collected and apportioned and the strictest record kept of their subsequent subdivisions. Now the Relic rests in the holy Arakan Pagoda, pending the completion of the vast new Pagoda being erected for its reception on Mandalay Hill, which at present looks like a red-brick railway station with a lighthouse in the middle, but which will make a glorious show when all covered with the golden leaves and bricks of the devout.”

Then in the last few days the usual storms arose and he had to look beyond his Violets and his Roses. There was the usual fuss over mules and the stock joke was telegraphed that no mules were available, only, as usual, to turn out to be a complete fabrication. Still, he

obviously became fussed and telegraphed furiously. I doubt if he really knew that he was going to live under entirely different conditions from those which we had experienced at Hpimaw; for there we always had our bungalow, that was at least watertight, as a base, and we had the telegraph and the weekly post even in the worst rains. All travellers in those parts can bear witness to the appalling months between June and September; Kingdon Ward, probably, best of all, for he has crossed these hills several times during those pitiless months. He, however, was on the move, whereas Farrer was perched on his frontier range and immovably held there, whether he wanted to retreat or not, by the flooded N'mai at his back. That he had some qualms is obvious, but I am sure he did not realize the strain of living month after month in a tent or in a leaky bamboo shack with the rain tumbling down unceasingly day after day. Although on the whole we were lucky with our weather during 1919, Farrer happened on exceptional rains in 1920. In a letter to Sir Isaac he certainly shows signs of foreboding—at least, regarding the success of his collecting:

“By now you will have had my letter explaining where I shall be next year, so you will not continue to talk as if it were only original sin on my part that debars me from going North. In fact, I *am* doing so, as far as I can get. Only not even a Botanical Explorer, not even of the feeblest kind, is exempt from the human frailty of requiring food. Do you fully, I wonder, realize the limitations of travel here? In China and Tibet abundant ‘roads’ and inexhaustible supplies: here, in what is mysteriously called Upper Burma, a country with no supplies whatever, a country buried (this is not my ‘facile pen’ concocting fiction, but a quotation from the D. C. at Putao) in jungle of an almost Malayan density, with only two mule tracks—to Hpimaw and to Nyitadi,

via Putao—and otherwise only rare jungle tracks of the wildest description, with no scrap of food by the way, so that even if you took your hundred coolies up (and I am pledged to take none as my condition for being let go at all : which ties me to the only other mule-track) you would have to take about another hundred for everyone's rations. These ranges, in fact, comparatively easy of attack from China, are virtually impossible from Burma ; with a vast train you could, of course, go *through*, over the high passes, to Rima or China. This has been done. Kingdon Ward came over the Doker La. But he could not fix himself or get seeds of any single thing he found on his way over. And, for the work I am primarily concerned with, it is essential to be able to *stay* on a central point to get the seeds. Anyhow, I must do the best I can, and hope for the best."

To others he was a little more human and less the man with a fixed purpose :

"As for me, I have only another week in this Paradise ringed in with hedges of Sweet Peas a-blow: and then I start North where I shall squat in a tent for eight months of rain or shine (mostly rain) and receive letters, *perhaps* once a month. After that—oh, judge how I shall be hungering for a little life and human chat! It would be something even to catch a new little Panda, to replace the beloved Georgiana, untimely gathered to her mother!"

Finally Farrer received an invitation to sail on a trip through the upper defiles of the Irrawady between Bhamo and Myitkina in a Government launch. He flew up to Bhamo, only to find that the river was too high and the defiles closed. So down he had to come a hundred miles or so and take the train to Myitkina. There his worries were over, for he found thirty-two mules waiting for him:

“As the train came puffing and clanking up to Mitters, I began to wonder what my next difficulty would be. Probably the staff would be missing, and the Dragon drunk or dead or absent. But wait. There *never* was such an arrival. For, in the black dark, I arrived simultaneously on the platform at Mitters with three enormous thunderstorms and deluges that would have drowned Ararat. However, I perceived dim forms apparently searching for somebody; and it was, indeed, the staff, complete, and spick and span, exhibiting symptoms of pleasure. You would hardly know the place: constant rain has made it a green oasis, and the bungalow sits in a perfect blaze of flowers, among whom browses Ma, very well, but not fat, and oddly mangy-looking, with his new hair coming through, and his old mostly fallen out. It seems, too, that some skin disease was the end of Georgiana. Great fluffets kept on coming off her face, but she suffered not at all, and continued playing about and being quite cheerful and charming, until, one morning, she was dead. I am positively embowered in Bhajus of all shapes and sizes: a new chokra and a new odd man have been found in the family. And everybody wants more money.”

After a day or two in Myitkina spent in sorting the stores of which I had sent him an overabundant supply from Calcutta, so many that he had to leave some behind, he started off for Fort Hertz (Putao). The staff by this time were well trained and the start was a very different affair compared to that of the year before. In a letter to me from Fort Hertz he wrote:

“And, after all the fusses and fidgets and frights of the previous days, it was a miracle of joy and delight to find how smoothly everything now went. I was still dreading the mule-saddling, and had armed myself with smiles and propitiatory cigarettes; but everything went on with such miraculous smoothness that I even

began to wonder if I should not have mules left over ! However, everything turned out just exactly right, and you will realize my admirable economy when I tell you that I have consumed only three tins of sausages, one of bacon, and two of ham. As for Fort Hertz, it is a social centre ; with a Chinese shop from which I yesterday purchased twelve tins of salmon and as many of sardines. What they're made of Sabe Dies, but anyhow they eke out the supplies I've had to leave behind in Mitters. As I told you, I am now completely encompassed by Ghurkas, and even the chokra has a Chokratino at his orders. The Dragon, too, has been remarkably good : blind to the world, as Bhaju acidly commented, on the last night in Mitters : but that, of course, did not matter, and since then he has been a model of sense and helpfulness, allowing for a little bibulino at one of the bungalows, which allowed me to give him an allocution, not in anger so much as in sweet reasonableness."

Then he went on to describe his journey, which must have been tiresome, travelling, as he was, in solitary state. Still he had a greater capacity for living within himself and amusing himself than anyone I have ever met. I can imagine him riding with his body lolloping to the pony's stride with his thoughts in Pekin with Purdom, London with his friends, or Byzantium with the Empress Theodora. He would whisper to himself and his lips would move for hours on end, while he imagined conversations or concocted themes ; and all the time the pony would keep jogging along. The road to Fort Hertz did not lie through interesting plant country, so he took little note of his surroundings.

All his letters at this time are deficient of what he called topographical notes. This is all he said :

" My journey, up to the last three days, is good—and quite unlike what I had expected. After the first three

days you have the M'li (which is barely half the size of the N'mai, and a pea-soup-coloured stream at that, with banks like Loch Lomond) and traverse, day by day, great jungled ranges that give far finer views than you get on the Hpimaw side. It is not, indeed, a boring journey. But the last three days are *bloody*: you emerge from the hills on to the Putao plains, which are a set of up-tilted reedy levees, *à porte de vue*, one above another, with Putao itself on the final promontory of them: the view would be magnificent—if you could ever see it! Indeed, the plain is very like that of Venice up at its head, at Udine, ringed in with the Julian Alps. And the road (for the last three days) is one concatenation of quags. Coming in, I had to walk, for Ma saw some buffaloes, and ran away over the meadows to play with them, and would not be reclaimed. Barnard (the D. C. at Fort Hertz), of course, was 'out,' having gone to meet me at Lungtao; however, after a forlorn arrival I settled in, under the auspices of his chief clerk, and soon was bade to dinner with young Prescott, which very greatly cheered me. And Barnard has now come in again, so all is well, and I hope to push on to-morrow."

If you will glance at the map, you will see how Farrer had to strike east of Fort Hertz and cross over the divide between the M'li hka and the N'mai hka to the north of the unadministered Triangle. At Konglu on the divide, which must be one of the most desolate outposts in the world, he saw his goal in front of him, and apparently none too soon, for he described himself as—

"rather fratched and fidgeted with the cares of convoying a mule caravan of thirty-seven through four weeks of undiluted jungle, jogging it along from day to day through a vast palm-house, blind and dark and frightening and deadly silent, but for the jodelling of the chorusing monkeys whom you only very rarely catch a glimpse of, like little black old gentlemen with white eyebrows

climbing soberly upstairs—and then suddenly plunging out and down, like trapeze artists, in a tremendous surf of foliage. And so, at last, I climb up here which is a bared mountain spur of 5,000, peppered with bamboo shacks, and fronting westwards upon a perfectly stupendous view, as if one were commanding the shoreless ocean of Birth and Death. Here is my last post and permanent address, and from here I launch forth over a yet wilder stretch of jungle for another fortnight, and up at length on to the knees of the alps. Another, indeed, of the things I don't like about the jungle is that it always seems so malignantly the same. None of that throb and thrill of spring. Oh, *don't* I know it! For that is what always turns my heart to the hills in June, and what, in the first warm day of March, sets me itching to get my fingers into the vibrations of the awakening earth; why, it is like running one's fingers through the hair of La Belle au Bois Dormant as she stirs from sleep! I am paying a long, heavy price tho' for the thrill of this year! Solitude far too long; up in a place too big for one's pettiness is bad: one has to expand or be squashed. I wonder if I shall emerge a saint or a philosopher—or a gibbering lunatic."

This is the only sign that I have seen in Farrer's correspondence of a feeling of despair; and it is particularly striking, for moods are rarely reflected in his letters. His was not the temperament to rouse him to the skies one day and send him to the depths the next; his moods began and had to run their course. His letters to me were far more cheerful. From Konglu he wrote:

"All still apparently goes well with me, although just lately I have been in rather a stew of fidgets and frights about getting coolies and getting them supplies, and crossing the N'mai. I hope to be off to-morrow again, after a torrential day of letters, complicated with straightening out, and purchasings, and advances to the

staff. Everybody goes on being as good as gold, and the Dragon is positively rubies! I think he feels, now that there is no small master, that he carries all the responsibility for the big one. And I, on my side, am gradually learning Dragonese, beginning to understand that 'Coming back nothing else' means 'Has not returned.' Even the muleteers are good fellows; and, once I have got the whole pack safely across the N'mai, I shall breathe more freely for a bit, not only in the security of having got across the river, but also because then *the* wild bit of the journey will be done, and it will be easier for everybody to come on than to go back. But I do wish one ever knew where one was with these officials: one tells one tale and one another; the bridge which I heard in Mitters was finished a month ago is to-day going up the hills on coolie-back in coils, under a great beastly bulging bully of a Babu, who got them all off, to the Dragon's disapproval, 'crying, crying, crying.'"

Then came the final stage to the N'mai with all manner of fusses before he was safely over on the other side.

"Such a much! Here sit I, and all the goods and chattels, safe on the right side of the N'mai: but my means of transport sits obstinately over on the wrong one, and declines to budge. I can hardly, in some ways, blame it. We got down here yesterday, from the redoubtable heights of the Shingrup Chet. With your knowledge of Government officials and their information, I need hardly tell you that, where everyone of them had promised me both a temporary and a permanent bridge, we now found not a sign of either, and only a ferry consisting of 8-10 bamboo poles lashed together! All the same, the river was perfectly practicable, and mules are habitually swum over at this time of year—though I confess that the N'mai seems to me to be just as formidable here as it does down below after it has received the Chipwi and the Ngaw Chang, and the Mekh and the Laking and the Akhyang. Even at the worst, they could

be rafted. But nothing would serve my fine gentlemen; they all shrieked with rage in concert, till Mr. Bhaju's mild pleadings were quite swamped. A babu, supervening, gave smiles, but no help: in fact, I regretted his advent, as he insisted on providing hot, sweet coffee and biscuits, for which I had to wait long amid the turmoil. Finally, while everybody was still screaming simultaneously, I firmly announced that get across they somehow must, and then in my cheerful way, left it to other people to see that they did so. After all, there is no point in the Master's going on sitting there and being squawked at! So down I squattled on a tarpaulin, amid the surging sea that sooped and seeped across the raft; and off we went paddling, upstream first, and then out and out, till we were caught in the race of the river, and came raging down in it like a cork, bobbledy, bobbledy, in a chaos of white-crested breakers, until, at the lower end, miraculous efforts brought us home among the rocks. It was really a gorgeous and thrilling experience.

"The rest of the afternoon I spent on a boulder, watching all the goods being ferried over. For them, at least, I was determined to have under my hand. In the midst of all this, an 'ismall vennyson' was perceived swirling down the torrent. Instantly all parties, on both banks, ceased their work and their quarrels and pursued the 'vennyson' with shrieks. The luckless little beast drooped ashore among some rocks and bushes, and Mr. Bhaju got in ahead with his rifle. I made quite certain he had bagged a coolino with his second shot (so far as I can gather from kitchen-chat 'coolini' has become current for the plural of coolie), but it proved no such thing, and only the 'vennyson' was borne back in triumphant procession. After which the process of ferrying the goods resumed, till dark came down in heavy downpours, which have continued all night, and now seem settled to a soft and steady sopkin, which if the mules *do* continue obdurate and go

home, will, I am thankful to think, give them fair old hell on the Shingrup Chet. I had hoped that the sight of Ma, being statelily wafted over, might have brought them to a better mind; but Bhaju holds out no prospect of their being moved even by this inspiring spectacle.

“ Meanwhile, here sit I, in a poky little dark sad bungalow, embogged in piddle-puddles and dung-quags; while those audacious liars dare to assert their contract ends here! Of course, I shall get my money back, and, I hope, a mulct; but meanwhile, it is all a bloody bore, and I have to redistribute everything, and secure coolies in incredible numbers. Luckily Porter is just ahead on the road, and the bridge-building Babu (even this bridge is not going to be designed for mule traffic) has returned good for evil—for I thought him a bulging great brute when I met him at Namtising, and he showed greater sense than all of them, by prophesying, most odiously, all that has actually befallen, by volunteering forty-five coolini, while Bhaju seems to think there will be no difficulty in getting more. Mercifully we are now arrived back in populated country again; in fact, in country more thickly peopled than any yet.

“ The last four days, ever since Konglu, have been *absolutely* desolate, not a hut, not a shack, nothing but the mournful and malignant monotony of the jungle in every direction. The Shingrup Chet is a formidable pass. After leaving Konglu you are on native tracks again; which means that they career mercilessly up a mountain, along its crest, and then mercilessly down again. Rain had made these proceedings yet pleasanter, and the Shingrup Chet crowned all. First you zigzag up for about 3,000 feet, through bogs unspeakable, where several mulebeasts foundered, and their owners were empeevd. Then you sit, exhausted, in a nasty little bungalow for the rest of the day. After which, you go *all* the way down again, and all the way (and more) up the other side of the valley, to the gap that is the pass. It certainly has a wonderful view: backward, you see

the whole semicircle of the big alps round the top of 'Burma'; while in front, you command the southward running course of the N'mai hka far below, and along beyond it, the great snowy wall of the Chinese frontier, very much more magnificent than Hpimaw, and also much colder and more alpine. Even at 4,000 I have wanted greatcoat and woolly and kitten: while the Shingrup Chet, at 8,000, has as alpine a look as the Hpimaw Pass at 10,000.

"There was a very pretty little fringy blue *Primula* there going over; and another one, not even in bud as yet. On the whole, though, the rain-forest flora here is about the same as at Hpimaw. Leeches have only bothered us once, far back, when I felt odd, and looked down, to find my lovely legs all a waving wriggly fringe! I squawked loudly for the staff; whereon they all discovered themselves to be in the same condition, and a great scene of squawkaceousness ensued."

CHAPTER II

HIS HUNTING GROUND

ALTHOUGH Farrer describes the marvellous view from the Shingrup Chet with the frontier alps sweeping the horizon, yet he had many a weary day's march before he came within reach of their buttresses, for distances cannot be measured by length of vision. Minor contortions that, from a height, appear as specks in the landscape increase in size and tortuosity the closer you approach, while the real heights seem to fade further and further away. The more you grasp at them, the more elusive they become. Forrest has told the story of a marvellous Rhododendron he once saw through his glasses on the far side of a moderate-sized valley. It appeared to be a half-hour's walk away, and yet it took him and his men twenty-four hours to reach it. That is not uncommon; for I know of no place in the world whose innermost sanctuaries are so hedged in with such amazing natural defences. The rule on the frontier is to doubt all appearances; the clearer you see a plant, the longer you allow for its collection.

Farrer followed the trough of the N'mai for several days before he turned off where the Akhyang rushed into the N'mai. Then the road immediately began to climb the wooded slope of the long spur of Kum-la-Bum. Here he was at once in hunting country and came across several Rhododendrons, among them a fine white epiphyte, obviously a Maddeni, which he described as an even finer thing than *R. bullatum*, with larger flowers, often heavily flushed with rose and very fragrant. Here

also was a close relative of our crimson beauty of the dark woods above Hpimaw in *R. ombrochares*, although in this case it was no weedy straggler; for Farrer described it in the *Gardeners' Chronicle* as a first-class plant and

“in April-May a blazingly conspicuous feature of the lower and lighter alpine woods, flowering so profusely that, though the innumerable balls of blossom are really crimson, the effect is of blood-scarlet from afar.”

Alas! all these *Irroratum*s of the border are too tender for our gardens, too soft, indeed, even to stand the Cornish climate; and it is a pity. Even the poor stragglers at Hpimaw were worth the journey, as the colour, though not so virile as that of *R. Kyawi*, is so velvety and luminous that it gives out a ghostly radiance even in the deepest shade.

This range, which did not exceed 9,000 feet, must have been a storehouse of plants belonging to the Maddeni series. He found also *R. megacalyx*, luxuriating in greater abundance than we ever saw it by the burnside above Kangfang; but in his estimation his greatest find was what he hoped was a new species and which turned out to be *R. sino-Nuttallii*. In the *Gardeners' Chronicle* he wrote:

“Twice I came on fallen flowers before I dared realize that here I had, not the general white epiphyte, but a new member of that grand group which climbs, through *R. megacalyx*, to its climax in *R. excellens* of the hardy and *R. Nuttallii* of the tender Rhododendrons. This, too, is an epiphyte, a thin, sprawling bush in the tops of huge trees, flopping down with large, regular trumpets of purest Frau Karl Druschki white, that almost give the effect of a Eulirion Lily. It is hard to obtain, though, as perfection, and I tremble to think how few pods I was able to mark down, fiercely though I peered for them,

as I passed along, over strata of fallen petals from a beautiful snowy magnolia of these elevations."

He came across several old friends on this range, among them the crimson *Rhodoleia Championi* and the aromatic *Pterostyrax burmanicus* that we had seen above Hpimaw. Then there was the tall Cherry from the Hpyepat, which must have improved in looks, for he described the blossom as more vividly rosy than *Prunus Puddom*, and a Lily, which may have been our friend of the hot banks above the Ngaw Chang. His final treasure on this journey was another Rhododendron of the *Ciliicalyx* group, which sounds the most promising of all these doubtful visitors to our gardens, since it did not bloom with any freedom until the end of May and grew at an altitude of 10,000 feet. As usual it was epiphytic or grew on cliffs:

"a bright green bush of 4-5 feet inordinately profuse with clusters of 3-4, very large, wide, fragrant flowers, opening creamy and passing to pure white, but varyingly flushed with rose outside, and with a rich apricot stain in their throat, usually transforming the whole blossom. Not often have I met with anything that gave me more delight or higher hopes."

Then came long marches up an open contorted valley that finally closed in and

"the coilings of the narrowing glen, high above the diminished Akhyang, brought us round bend after bend, and into sight of the most terrifying pinnacles, pitchy dark, far away up in the sky; and there was the city of Nyitadi."

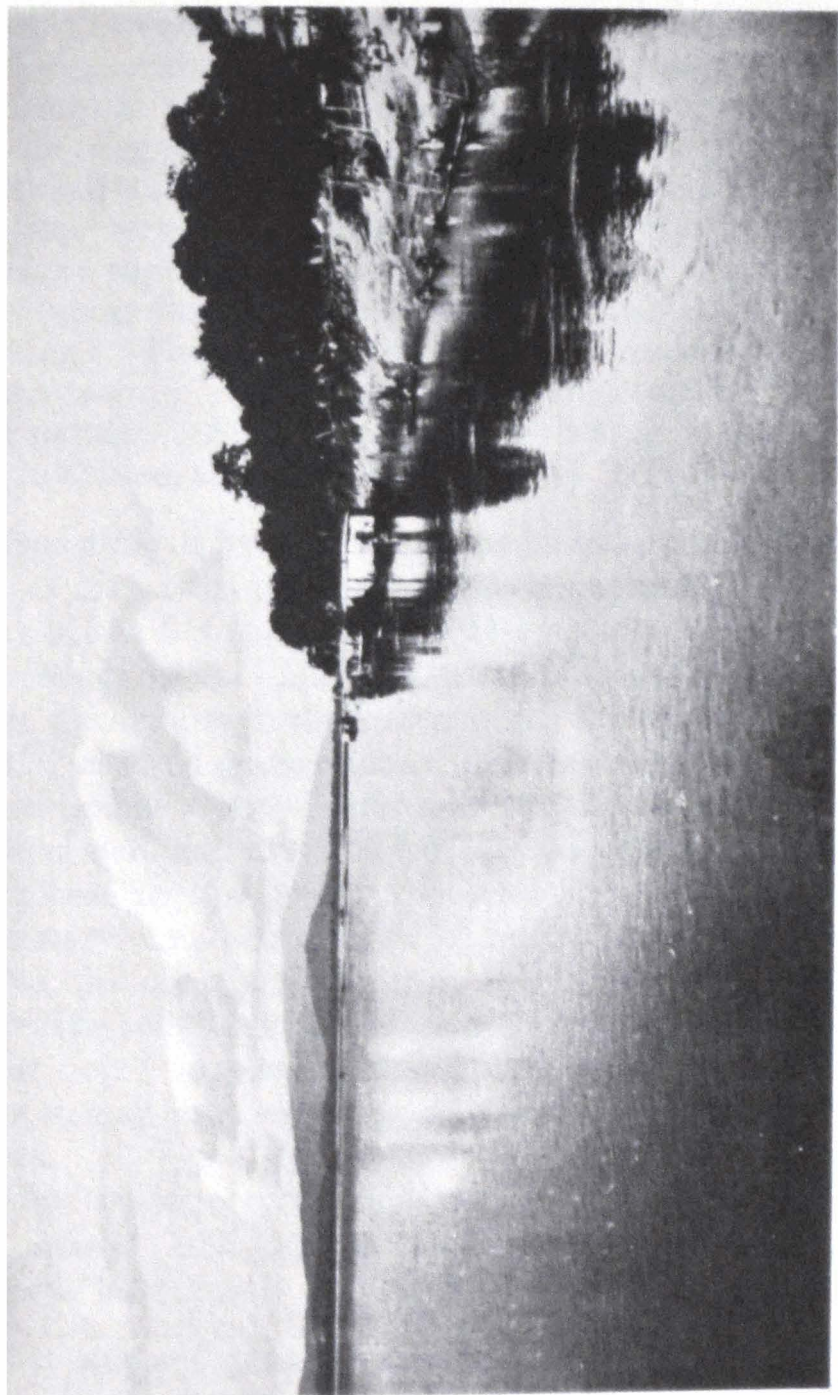
Then in a letter from "The Residency" in May he wrote to me:

“Here I am exceedingly happily and successfully established in this metropolis, which consists of four chalets. I had no further trouble at Ridam: three-and-seventy coolies accrued as if by magic, and, with equally facile relays of more, I proceeded uneventfully on my way. When the cash was near giving out, I gave each a ticket marked ‘R.1’ redeemable by bearer on the arrival of more bullion, and everyone took most affably to this paper currency. The Akhyang valley is very like a gigantic Hpimaw one, with more Hpimaw ones running down into it on either side. It is all open, and you may judge how populous by the abundance of coolies. The road is excellent, winding steeply up and down, in and out of the profound lateral valleys; while, down below, the Akhyang flows so deep that the forested gorge seems to have puffed up over it, like flesh over a string tied too tight. Magnificent snows appeared at the head on the third day from Konglangpu, but they proved a false hope, and it is only within the last hour of the journey that you come into sight of Nyitadi and the Alps overhead. These I just saw as I arrived: altogether I have had my usual luck, for, though all the way up I never had a good day, I also never had a bad one. The only irredeemable soakers I have had befell on just the very days that I *could not* have taken the road had the skies been fair as Heaven. The last stage looked *hopeless*: five minutes after starting it cleared: all the great crags and snows over Nyitadi loomed into sight; and then, once I was safely ensconced, the day closed in finally, again with unrelenting deluges.

“You will gather I approve of Nyitadi: it sits 2,000 feet lower than Hpimaw: but at the junction of two torrents, with a semicircle of Alps around and glens radiating up into them. In the middle of the foreground is a sort of a little Luksang, dividing the streams; and, to left of this, a very big, wild, jungled Luksang, acting as portal to a range of tremendous peaks, like frozen flames of black granite, perfectly inaccessible and fantastic. On the

right a sort of little Hpimaw-spur of forest runs down from vast alps and valleys, all at present filled with snow, though not a scrap of this will be left by July. It looks a wonderful land of promise. Many of the valley things are the same as at Hpimaw, and one or two of the Rhodos: but already we have got some very fine new things, and, of course, the orchestra is only just beginning to tune up. I have been sitting here these ten days, while the orderlies go out, prospecting ways and means and plants to paint: but in a day or two I make a first excursion, and after that the ball will be fully open, and three visits each to three of the big passes will probably quite satisfactorily fill up my year.

“ This bungalow is a fascinating place; it is, in fact, the mimsiest little bamboo shack you ever saw. Tang-tung was a Ritz by comparison. Here it is nothing but vacillating screens of bamboo: there are no windows, but the gables are open to make up, and through them the rain drives right across with the fury of Jehu. In the middle is a mudded square for a fire, but the smoke is so hellish that I cannot bear it, and take comfort, instead, in greatcoat and kitten. But it is now my perfect home, and *nid de bonheur*. I have rigged up tables and shelves and screens: arranged the boxes; got out the books; and now I look on it as more of a snugger than I ever found in that grim and second-hand Hpimaw. And Ma browses all about, and grows as fat as butter on the five-leaved raspberry. The noblest part of my plenishing is afforded by the stores: all unpacked, and arranged in rows on a great double shelf all along one side of the room. I am delighted to contemplate them, and to realize that I, indeed, have an ample supply after all. I have made things last surprisingly on the way up, and the Dragon is rather indignant that one tin of butter and two of jam should have lasted me all the way from Mitters. Altogether I am so amply provided as not, positively, to need anything more; especially as the local Akiwas (to whom I was introduced by a very extra special one from



THE IRRAWADDY AT BHAMO

down the valley—a sort of local king of the Akhyang, and a charming old Chinesian person, who escorted me up here) at present provide eggs and hens in such style as to relegate Cook's farm eggs quite to the future. The staff is all well and happy, with love from the Dragon. He was very dragonish yesterday, when Bhaju came to me for a rupee or two for an 'ismall' goat. The Dragon flew upon the scene, popping vigorously 'What you talking? Fwow it away down ystate (better throw the money away). Master only liver-kidney eating. Master not paying.' And the end of it all was, I paid 8 annas for my share, and they paid the rest."

It is difficult to trace his various wanderings from now on, as his letters give no consecutive account, and even that in the *Gardeners' Chronicle* does not seem to cover the whole of it. Much of what follows is condensed from his articles in the latter, which the editor has very kindly allowed me to quote. In some cases I have made emendations where Farrer was at fault in his naming. I have deliberately included the description of plants, a proceeding that might appear at first sight to be unnecessary, since only a few of his earlier seeds arrived home, and none of the later finds; but my excuse is that Forrest's collectors have since visited this area; and it is to be hoped that much that Farrer was the first to set eyes on may now be coming up in seedpans from Forrest's seeds.

The first journey to the Chawchi Pass is described in an article published in the *Gardeners' Chronicle* on June 4, 1921:

"It was not until the middle of May that it became possible to venture up on to the heights for a stay. Even then, of course, the highest heights of all were still under an unbroken mantle of white: but at all events the possibilities of the middle-alpine region might be

described. So up went the caravan on to the Chawchi Pass, in a day of such sopping rain as wrung my heart for the wretched coolies, staggering beneath bales of tents along greasy poles, across the face of cliffs.

“The Chawchi, like so many of these passes, does not ascend a valley to a col. The valleys here are too fiercely torn with ravines for this to be possible. Instead, it climbs straight up a descending spur of the big range, and then along the crest to the final steep. These were as yet out of the question. I camped at about 10,000 feet, in a gnomish grove of gnarled old *Rhododendron* trees, like the transformation scene in a pantomime, with fantastic glades beneath, and pools and lingering snow-drifts.”

He then went on to describe the presence of many old friends from Hpimaw, among them *R. sidereum*, much more abundant and vigorous than we ever saw it, *R. bullatum* flowering as profusely as the big plant on the rock below the Hpimaw Pass, and *R. glischrum* that abounded by the jungle camp on the way to the Chimili. Snow obviously lay longer at a low altitude than it did on the Hpimaw Hills, for he was no higher than the Hpimaw Pass, and yet he said:

“Straight before me rose the final ascent, in front of a white semicircle of alps. The final ascent, indeed, was all white itself to within a very few hundred feet of its beginning; I pitied the starved-looking tree *Rhododendrons* that dotted, like great skeletonized Mushrooms, these white deserts. Down below the whole coppice was dominated by *R. arizelum* (F. 863), in portly trees that quite cancelled my previous poor opinion of it at Hpimaw, where the big-leaved pink F. 873 seems to crush it out of health and comparison. Here the latter does not appear, and *R. arizelum* can accordingly reveal its full character. It is, indeed, a noble tree gnarled and stately, now and then jutting epiphytically out of one of the great

sombre Piceas, that here almost all have a pole rigged up from their apex, with a noose to catch alighting eagles. I am struck too by its variableness. Typically its blossom is of a creamy white, like that of the second 'Big Leaf' at Hpimaw, but easily distinguished by the smaller and much closer truss. This is a plant of the alpine woods, while *R. arizelum* does not begin until light scrub and coppice reign, over which it can dominate with its round-headed trees. Even up in the snow this bold plant was in blossom.

Then he continued with a description of what turned out to be two new Rhododendrons, both of the *Irrotatum* series; one (F. 1552a), *R. chawchiense*, can be left aside, for he describes it as a most repulsive ponticum-magenta; but the other (F. 1551), *R. hylæum*, must have been a remarkable sight, and what he wrote about it is worth quoting:

“Its flowers were all so completely fallen by May 12 that I had much ado to get specimens, and to discern that their shape is generous and their colouring of a rich, soft rose, with crimson specklings. So far therefore, the salient points of this species to me are its stature and its trunk, for it is much the biggest tree Rhododendron that I have yet met, forming a rounded head of verdure 30 or 40 feet high, with a bole as big as a specimen Plane or Sycamore. Nor do its peculiarities cease here. For the whole tree, up to its smallest twig, has the bark, as it were, peeled clean, and the smooth surface lacquered over as if with a pale drab wash. Its bald-looking limbs sometimes have an elephantine look as you see them sprawling down some cliff in the upper region, while its young foliage is of the brightest and cheeriest green.”

I cannot let this opportunity pass of again pointing out the fact that there is no rule of thumb by which we can gauge the hardiness of plants from this corner of

Asia. I daresay that this *Rhododendron*, if it is ever introduced, is not hardy, even in Cornwall, and yet up on the Chawchi its flowers were not only out, but over, within a hundred or two feet of what was the snowline at that time of year. If ever one would imagine that a plant was hardy, it would be in a case like this. Hardiness is not a question of the extremes that a plant can stand, but of the small fluctuations which it has to experience; that and two other factors that most gardeners are often inclined to overlook, the actinic value of the light and the humidity of the atmosphere. He went on:

“Very different is the next strange *Rhododendron* that I have to quote, passing over, for a moment, the glories of *R. æmulorum* (F. 815)”

—this turned out to be a new species, *R. cœlicum* (F. 1548), very closely allied to *R. æmulorum* with smaller leaves and a densely glandular ovary—

“now making blotches and drifts of blood from afar among the bamboo scrub, or flapping in its splendour over some little cliff, in a fringe of deep scarlet flowers. For, having paid my respects to this, and rejoiced over the chance of getting more seed of a species that more and more impresses itself on me as a king of its kind, turning Doncaster to a dowdy, and challenged only by the lighter scarlet of *R. Kyawi*, I crossed the rib and found myself on a strip of shaly scree, still frostbound and like iron, above a snow slope falling away to depths unknown. Here, in the damp Moss, shone a queer little *Androsace*, with lilac flowers like *Petrocallis*, sitting each by itself in the spongy, wet darkness. And here was a *Diapensia*, close twin to *D. Forrestii*, but with flowers of a lovely rose-purple, trying very successfully to imitate *Saxifraga oppositifolia* in the cliff of Penyghent.

“ And beyond these, across an intervening snow-slope, lay huddled on the bare soil the fallen blooms of *R. æmulorum*, hanging from the cliff overhead. I looked again through the glass, and again and yet again. I could not feel quite happy about those fallen flowers, that did not seem to be lying as carelessly, somehow, as fallen flowers should; and they also seemed to my excited fancy to be of a slightly different scarlet. It is always worth while, with flowers, finding out—even if it be only to find out that one has been a sanguine fool. I made my way gingerly along. And there were the fallen flowers of *R. æmulorum*, lying just so on the shale. I could have kicked myself for hoping otherwise! But I told the orderly to go on anyhow, and just make sure; shrieks of triumph greeted my ears, and in a few moments he was back, thrusting into my hand specimens of a Rhododendron that runs absolutely flat along the ground, in Moss and Sphagnum, with foliage neater and brighter than that of *Salix serpillifolia*, and solitary terminal trumpets, almost as large as those of *R. æmulorum*'s, indeed, and of a blazing pure vermilion.”

This, of course, was the first time that Farrer had seen *R. repens*.

Apart from finding two or three species of the charming dwarf *Campylogynum* series, among them *R. tephropeplum*, a new discovery, he had finished with the early flowers on the Chawchi. In any case, he was too early:

“ Daily, even while I was in camp, the hills awoke. The snow tumbled off them in avalanches right and left, as if shaken by stirring giants from sleep, and different flowers took the place of the old.”

Without wasting any time Farrer tackled the next pass, the Moku-ji, apparently very little used by the natives, for he talks of a mere suggestion of a track. The final slopes were so steep—as, indeed, is the case all along the

frontier on the Burmese side—that he had to camp at the base. This was always a nuisance, since it meant that every time he visited the tops he had to claw his way up over rocks and through tangles of *Rhododendron* scrub.

“Up there it is impossible to find a place for tent-pitching; so, pending further investigation, I camped at the foot of the climb, in a clearing with *Rhododendron bullatum* showering its scented trumpets out of every tree, and a hundred million microscopic black midges darkening the air. Above, impending starkly, towered awful needles of granite, to which carpets of green Juniper and felted alpine *Rhododendrons* desperately clung; and high above these again soared the ruinous and dreadful summits, with *R. cœlicum* shedding a dim haze of blood over the cane-brakes and ledges.”

On this trip, at any rate, he must have been disappointed, as few new plants are mentioned in his account. He certainly found *R. aiolosalpinx* far stouter and finer than we had seen it at the Chimili. Instead of the rose shades so common further south the colours of the Moku-ji plants were mostly confined to a creamy-white, while the flowers were invariably larger. He also described what he considered to be a different species, but one which I am unable to trace; he said:

“The king of the situation in May and June is a bush or snow-depressed tree of 4-12 feet with narrow foliage very glaucous on the reverse and an amazing profusion of flower-heads, in the most amazing variety of colours, from as soft a pure yellow as *campylocarpum*'s through every shade of orange, salmon, flame-colour and tomato, to as rich a rose as the deepest *aiolosalpinx*—with innumerable diversions, too, by the way, in freckled and flaked forms like *Picotees*, of cream or honey-colour, picked out with salmon round the lobes and down the ribs.”

Farrer's main delight was always in Primulas; in fact, Rhododendrons were so much of a new diversion, that I am not quite certain if his fleeting affection for them would have survived at home, particularly as his own garden was on limestone. In nearly every article and letter at this time he complains of the absence of new Primulas. On the Moku-ji he saw again *P. sonchifolia*, *P. euosma* and *P. calliantha*—

“ ‘only ’ three of the prime beauties in their beautiful race. Can the heart of a collector be so crude as to curse them for still being themselves? I confess that, as I contemplated their breath-taking loveliness, my spirit grew quite tame and reconciled to them. They might, perhaps, have been different and new species; but how could they ever have been more beautiful? Nor are any of them, yet, precisely a drug on the market!”

The only other plant of note that he found on the high tops was a *Diapensia*, of singular beauty, forming wide hassocks hidden from view beneath its profusion of ample, primrose-coloured flowers. He likened it to patches of moonlight among the rocks, while Bhaju, with a more sceptical mind, called it “rock skin.”

Towards mid-June Farrer started off on the first exploration of the third pass, the Shing Hong, that lay to the south. This was certainly the most difficult of approach from Nyitadi, since he wrote of a day's journey back towards the N'mai, through a region of *Dendrobiums* and an atmosphere like an orchid house, before striking southwards, and a difficult three days of climbing in and out of collateral valleys. There, on grass slopes and among shrubs, he came upon *Lilium giganteum* and our *L. Brownii* var. *Colchesteri*, that seems to be the universal Lily on the Burmese side of the border, and, indeed, is widespread throughout southern

China. Even when he began to climb and reached the alpine woodland on the third day, he found nothing remarkable except a Clematis with cold-white flowers which he describes as the largest-bloomed wild Clematis he had ever seen, apparently far finer than *C. Spooneri*, so common on the Hpimaw Pass. This must have been a magnificent sight, for I remember our enthusiasm when we turned a corner and saw Spooneri rampaging over the tangle by the pathside laden with masses of snow-white blossom.

Then he described the climb :

“ But Lissu paths, like Lissu peasants, are perverse. The next day, though the alps are now quite near at hand, you have to lose all the ground so laboriously gained, by dropping right down again to a torrent bed, above its course a little way, and then right up again, higher than before, to yet another shoulder, which is now actually a part of the ascending path that climbs to the pass. Mounting now, far and violently, on the peak's other side, we soon regained the region of the big conifers, all of which promised to bear seed this year.”

There he found the huge Hpimaw Tsuga, a really magnificent tree with the same tiered habit, like any Cedar, though taller. There was also a tall Spruce and a long-needed Pine; but even here the magnificent Larch of the Chimili was a rare tree only to be found overtopping the thinner alpine woodland. He made his camp at the foot of a gigantic Tsuga, half-burnt out by innumerable travellers' fires, but still in good health. Here again a camp at a fairly low altitude was necessary, for, as so often occurs, water does not exist at a high altitude. This absence of springs on the tops shows the similarity in formation between the Nyitadi ranges and those at Hpimaw.

“ From this point the climb goes straight forward, up and up and up, through all the stages of the alpine vegetation, from woodland to big Bamboo, from big Bamboo to coppice, from coppice to the small Bamboo of the highest arrêtes. But of these and their prospect I am not at liberty to speak. For I now lived in an unvarying fog of soaking rain, and my explorations commanded, at the most, a view of twenty yards in one direction or another. None the less, I hope I ransacked the available riches of the pass. For there was no hurry. At 12,000 feet on the Chinese side the conditions were still almost those of winter. The bamboo brakes were sere; great snow-fields and cornices were everywhere; and, even where these had yielded a little, life was as yet hardly emerging from the soggy, brown dankness revealed. All was mere promise; one fat thing was pushing up, indeed, in wide masses of crimson pseudo-bulbs, that made me at first believe that here was a big-clumped rheum arriving on the scene. It was not till I dissected a long, snouty bulb that I discovered a new *Primula*, apparently *sonchifolioid*, but a quite distinct species. However, of this I shall reserve my tale until I shall have found it in flower. It was all deadness, lit by the pale glare of the drenching fog.”

He found that his lilac and yellow *Diapensias* were over, and a tiny violet *Primula* in their place. Lower down was a little Apple-blossom *Rhododendron* about a foot high and two across that blossomed by the mile.

During these three trips he had neglected his letters, but on his return to Nyitadi he made up his arrears of correspondence. In one letter from—

“ Nyitadi—above Kong-lu—above Fort Hertz—above Myitkina—above everything and beyond Nowhere,” he wrote: “ For ten whole weeks have I been ensconced here, at the end of my journey, at the Back o’ Beyond, in a tiny little one-roomed shack of bamboo-like lacework

which is my base and my Capua, in the intervals of going up to sit in tents on mountains in a cloud that never lifts and a rain that never leaves off! You would think this, perhaps, no very promising material for happiness—and yet, *happy* I am all the time, ridiculously, preposterously happy, so happy that I go to bed at 8 and just lie there being it, almost too busy to read more than a sentence or two, even of Emma, at a time. Why?—Peace, solitude, and the high and holy tranquillity of the lonely mountains and their spirits for constant companions. Life flows by like the shoreless ocean of Birth and Death, and I have got two books to be busy on—and all is for the best in this best of all possible worlds—though I should not *positively* object if the rain would sometimes leave off for five minutes, and the sun come out, and the views.”

Of one of these books he said in a letter to me:

“ I have on the stocks a new masterpiece, to be called ‘ Latter Ends: or a little Book of Consolation for Obscure but Respectable people like You and Me.’ It is just a fun-book, and I have been hugely enjoying its stories. I have already done Henry VIII., Mary Stuart, Cleopatra, Helen, Theodora, Eirene and Theophane; and in time hope to tackle Tiberius, Antinous, Philip II., Anne Komnena, Guenever, Lucrezia and Nero. Tiberius is to be an amiable valetudinarian, who will use *all* the speeches of Mr. Woodhouse !”

Unfortunately the manuscript of this masterpiece was never recovered. His idea was to prolong the lives of these characters and imagine what they would appear like and do in a ripe old age. There is no doubt that, as far as they went, they would have been accurate historically. But imagine a book of this kind being written 2,000 miles away from a library and without a single work of reference at hand! His knowledge and

his memory were quite capable of producing what might very easily have been a masterpiece of cynical humour. In the same letter he said :

“ Meanwhile this year goes on swimmingly ; everyone is as good as gold, and the orderlies giving double work for their doubled wage. Bhaju can now be trusted to go anywhere after anything, though his keenness makes him rather a splitter in diagnosis ! As I thought, the three passes will just nicely fill the year. I came back from the last, the Shing Hong, two days ago, after twenty days of unbelievable sopkins : and now begins the long summer camping—three weeks on the Chawchi on the 29th, then the Shing Hong again, and then the Moku-ji. And after that, the harvest ! At first I was vexed to find so many old friends, and so much *more* Bamboo here than at Hpimaw ; but now I am quite satisfied with the number and quality of the new friends, and it is going to be a seed year, too, for Acer and Conifers ; and R. 1590 is the glory of the world—though only three certain plants are known ! As for the menage, nothing could be better. The tins are lasting lovelily—indeed, in the case of camp-pies, so long that I have come to loathe the very sight of them ! And every time I come down from the mountain I have a beano bust of lobster patties and tinned fruits. And grape-juice is eked out with cold tea ; though on my return from the Shing Hong I did indulge more copiously. So far, I continue in the pink ; if ever solitude makes me wonder if I have not again twisted my guts on a bamboo slide, I am soon convinced that it is all only a case of Mrs. Croft at Deal. Ma and his keeper enjoy a life of complete and glorious idleness ; and grow so fat accordingly that I am always appalled at the perilous bulge of the latter’s breeches ! No wars or rumours of wars have yet reached me ; and the year seems whizzing by.”

CHAPTER III

THE SUMMER

THE Chawchi was certainly Farrer's main hunting ground, for he devotes no less than five articles in the *Gardeners' Chronicle* to a description of his finds. He was exceedingly enthusiastic over those three weeks in July, spent in camp at 12,000 feet under a constant deluge and in a consistent mist. On his return to Nyitadi he wrote to me:

“ The flora seems to get richer as you come north. The specimen book now gives 50 solid Rhodos, and of these 30, at least, unknown to 1919. *Primula hung* fire for a long time, but has now leapt ahead, in quality at least, with a lovely little crimson one, and a huge-belled pure-white which is one of the most beautiful flowers I have ever seen. *Meconopsis* has now given a big, floppy pale-yellow in the way of *M. integrifolia*: and *Nomocharis*—my dear—*Nomocharis* has not only contributed a big, tall, galumphing one that may be *N. Forrestii*, but also a new species, bright fiery vermilion! As for *Rhododendrons*, last year we never saw them, really, on the tops, setting as we did valleywards in July. On the Chawchi all over the open miles of the hillsides (not that I could ever see more than ten yards of them at a time) there were about twelve species, all in flower at once. A wonderful show: one which *may* be *meum*, aff *Chimili*, vel affine, simply makes you gasp with its beauty; but, indeed, the *Hpimaw* alpine ones seem here replaced by species very similar, yet not, I think, identical. Above all, seeing them all in bloom has enabled me to spot two pure albinos and three lovely natural hybrids.

I was just going to add that Kyawi is the only first-rate species missing here. A coolie, however, has this very moment brought in some simply shattering specimens of either Kyawi in superb form or else a new species proxime affinis (but I fear not)."

Unfortunately, at this busy time, Farrer's letters are few, and what there are lack description. I am, therefore, forced to string together what I can glean in the way of information from his articles. Even these, at the present moment, have lost their force, for in them he gives long descriptions of plants which he hoped would soon creep into general cultivation, but actually exist only in the herbarium specimens. Further on I quote at length his descriptions of those plants of which he was particularly proud. If you are anxious to learn the complete tale of his finds at the Chawchi, I can refer you to Articles 32-36, published between September and December, 1921, in the *Gardeners' Chronicle*.

On June 29 he started off for the high alps :

" This time, I took my camp to 12,000 feet, and affixed it, like a temple-haunting martlet's nest, to some rocks just below the pass, on the steeply ascending knife-edge. The view from here is stupendous : India, ' Burma,' China, Tibet, range over range of uncharted mountain-chains. However, I need not expatiate ; on the next day the mist descended, and for the whole of my six weeks up there it never ceased to pour with rain but once for an hour, and the fog never lifted at all, but once, for two hours. So that plants, and plants alone, must now be our subject : the delights of hunting these, day by day, in blank dark, and a sopping fog, are such as often make me think grimly of the words of one of my supporters, who, with that genial rudeness of which he, notoriously, makes a speciality, accuses me of making fat profits for doing what I ' immensely like doing.' To these

delights, too, are invariably added those of always feeling that there must be a sky-blue Rhododendron or a pea-green Primula somewhere just out of sight, to right or left, in the unfathomable white gloom. However, this makes one all the more diligently search and ransack.

“It is impossible, in the conditions under which I hunted for plants on the Chawchi, to tell about views or the configurations of these alps. After three weeks of diligent groping, however, I did ascertain that while on the western side the range soars violently up in crags and ribs like a taut rope; on the Chinese side it does condescend to the softness of high alpine vales, with flat stretches and sometimes even with little tarns. The arrêtes, themselves, are more mild in their descent to China. What did surprise me, however, was the condition of the ground up there. Even on the Chimili snow in mid-July would be unthinkable; here on the high crests the scene was still like mid-winter, with great snow-fields falling away in the laps of the fell on the Chinese side, and towering snow-cornices offering most convenient but unwelcome help along the crests themselves. Unprecedented or no, last winter's snowfall has left these alps so securely covered that I doubt if some of their new embryo glaciers will melt this year at all. I hope, however, they may, since much of this season's weather I attribute to the excessive quantities of snow that must go on, as they melt, breeding more rain and then more rain, up out of the steaming valleys below in a vicious circle, till all are gone and the alps are clear. If ever the fog lifts for ten minutes at dusk, one sees all the world below and the valleys mapped out. And, as one watches, they bring their new clouds to birth. Rolls of grey fluff first, then a solid floor of wool; and in another half-hour the spectator is once more obliterated in next day's blank invisibility.”

That, I think, describes as much of the situation as Farrer would ever have described; for he would never

talk about the hardships and the discomfort from which he must continually have suffered. The year before we had felt the joy of drying wet and heavy blankets in the sun, but even this alleviation of one's discomfort was impossible in that climate. A few other passages may help to give a slight impression of the hills by the Chawchi Pass.

“The high arrêtes make no overpowering display as yet; and there is at least a fortnight's difference between the state of things on the Chinese side and that on the western. On the latter no snow at all now lingers, except in specially cold couloirs and obscure places, and the glades among the bamboo brake and down the gullies are already glad with a great gaiety of flowers that on the eastern slope have not even unfolded their earliest leaves yet, from the brown dankness of the retreating snow.”

Then again:

“Between the peaks there are slopes and saddles of lovely, open turf, all as yet a promise, except for a citron-coloured *Fritillaria* that occurs all over these high tops, among grass and moss and scrub. . . . And, in the middle dip of all, there lies a beautiful little serene alpine tarn, set in broad, flat stretches of emerald lawn, still thick with floating ice-crests, and hedged about with dying snow-fields like miniature glaciers. In the fine green nothing was as yet in bloom; but above, the gentle moorish slopes and beck-beds were thick with flowers, and all filmed with the purple of *Primulas*.”

In writing about *Nomocharis*, he said:

“It is only down on the quieter eastern slope, where vales and meadows may be met with, that I had been long having hopes of a *Nomocharis*, when one day a wood-cutting coolie appeared from over the pass with the flowers of one, indeed, in his hand. . . . I was immediately all agog for these Chinese glades. The next

day gratified me by merely pouring in torrents: objects in the distance, however dripping, were at least visible. So off we set, down the staircase-like bouldered water-course which is the pass-track on the Chinese side, and ere long found ourselves in the valley head.

“ The stony slopes all around were still dank and sere and wintry, and gave promises of *Corydalis* and *Aconite* and the *Shing Hong Primula*. But the only thing in bloom was an abundant *Scopolia*, so very hideous as to be almost attractive in its sinister way, with round, baggy blooms of dull violet, enclosed in even rounder, baggier balls of very dark metallic green. But the easterly-facing scree-slopes in the lower, more open part of the valley were already green and flowery. To these, then, like the Psalmist, I lifted up my eyes, by means of the field glasses; and immediately, through the curtains of the falling rain, discerned pale yellow blobs that could only be a *Meconopsis* of the *integrifolia* persuasion. Vastly inspired by this, the first *Meconopsis* of the year, I trudged on downwards, storing it up against my return. . . . And then, over a wide, old snow-field, we came down into the wet, flooded flats of lawn at the top of the middle-valley, and here, at once, the scene was rich with flowers. . . . Bamboo brake succeeded, and then the valley wound down into opener regions, and a little lake embedded in lawns and hay meadows. The former were a solid glory of flowers, but all known ones: in the latter, of course, the *Nomocharis* abounded.”

RHODODENDRONS

Undoubtedly Farrer considered his 1558 *Rhododendron repens* as the finest plant he saw on the Chawchi. He constantly refers to it in the most glowing terms, but, I am sure, did not connect it with *R. repens* which had been found by Forrest in 1917 and described in the Edinburgh Notes early in 1919. He said of it:

“ On all open fine lawns, right away up to the highest dips and crests, this treasure literally sheets the earth with its big vermilion trumpets. For these are even finer, in the plant’s maturity, than when I found the first precious specimens starving among the snow-fields.”

He then went on to prophesy what a magnificent addition it would make to our rock-gardens, a prophecy that is being borne out by experience.

In connection with the high alpines Farrer wrote:

“ I am interested, too, to note how the *Hpimaw* and *Chimili* species have their echoes in others which appear specifically distinct, though very narrowly so.”

On the determination of his herbarium material, this has been found to be the case: for instance, *R. calostrotum* (F. 1045), which we found the year before and which is now so popular, has its counterpart in *R. charidotès* (F. 1690), a much more bristly plant than the former, in fact, noticeably so, but with the same open magenta-rose flowers, so large for the stature of the plant.

The same thing occurs in the case of *R. myrtilloides*, (F. 1046), which is also growing well. Of the Chawchi plant, Farrer said:

“ Even more striking is the case of F. 1046 with its neat little bushes and twined cups of Mahogany. Here abounds a species or form, much more desirable, half the size in growth, and twice the size in blossom, with otherwise no difference discoverable by me, except that the flowers are always solitary, remarkable as a Black Hamburg Grape with a red light shining through it.”

This variation is so distinct and so consistent that F. 1670 has been described as a new species and called *R. charopæum*. Unfortunately neither the latter nor *R. charidotès* is in cultivation as yet.

A *Rhododendron* that he obviously prized is that which is constantly mentioned throughout his articles under the name of Apple-blossom (F. 1627). This is a new species, named *R. charitopes*, and is a dwarf of the *Campylogynum* series. Farrer's field note speaks of it as:

“ a particularly charming plant of 9 inches to a foot, very copious with 3- (very rarely 4-) bloomed inflorescences. Flowers of a clear apple-blossom pink, but flushed more warmly in their upper lobe and speckled with crimson, and with a deep-rose tube.”

This was apparently very plentiful on the Chawchi, as he mentions that it covered the hillsides with sheets of colour. It must be a very fine and floriferous dwarf, and it is to be hoped that it will appear sooner or later in cultivation.

Two other magnificent dwarfs must be included; one of them, F. 1626, *R. nmaiense*, we had seen before on the Chimili and collected as F. 1410, but we did not see it in flower. I certainly missed something, for Farrer wrote of it as:

“ a little spreading dwarf bush of 6-9 inches, copiously set with dense and huddled heads of small, flat-faced blossoms that are remarkable, not only for their lack of pedicel, but for the extreme shortness of style and stamens. No trace of either appears in the blossom, whose pallid little empty face accordingly wears a rather blanked and striped expression. Yet, in full bloom, this species is to be prized, for the number of heads and numerous flowers make it a very effective object. They are typically white, with an oddly crystalline diaphanous texture, like clean, melting snow; but they often flush and vary to the very faintest tones of pink. To add to its charms, it is strongly aromatic.”

The other, F. 1671, *R. aperantum*, we had also found on the Chimili under number F. 1184, and in this case we had seen a few secondary flowers late on in the season, but nothing beyond a neatness of habit to show that it was such a treasure. This is what Farrer said of it:

“ It is simply one of the most radiantly lovely things you ever saw, and when you do see it your mouth just opens and shuts feebly. It is common, in drifts and sheets; and, for the altitude and stature, rather large in parts. In stature it ranges from half an inch, or less, to about 6 inches, spreading widely, and often plastered flat across a rock, where starved. The flowers are borne in threes and fours, in rather close clusters. They are very large, and in a sequence of the most glorious warm, pink tones—absolutely clean of mauve or blue shades—from carmine, through hot flesh-pinks, rose-pinks, salmon-pinks, to flushed snow and pure white. This year, seeing all these species in flower, the temptation is strong to mark special forms; F. 1671, however, baffles me completely: where each form in turn is the most beautiful, how is one to select ?”

A particularly interesting fact is that Farrer, without great knowledge of Rhododendrons, was shrewd and observant enough to find two undoubted natural hybrids growing alongside their parents. It is unnecessary to go into botanical details, but they were F. 1726 (*R. charitopes* × *R. charopæum*) and F. 1731 (*R. aperantum* × *R. chætomallum*). It is particularly unfortunate that no seed of these two plants has reached this country, for it might help us to find out something about the distribution and formation of new species. It would be interesting, also, to see how much variation in cultivation there would be in seedlings from two conclusive natural hybrids; for, although natural hybrids have been

suspected before, no evidence so strong as Farrer's has been forthcoming.

PRIMULAS.

Although Farrer undoubtedly found a few lovely Primulas during the second year, I do not think that new species were so common or on such a general high level as those we had seen at Hpimaw; in fact, I think that he was a little disappointed at the lack of new material. He was certainly very enthusiastic about a new member of that curious genus that has been pushed in and out of the Genus *Primula*, only to come to rest, apparently, in its own genus of *Omphalogramma*. They all have large single flowers somewhere between a *Gesnera* and a large Violet in appearance, rising from a tuft of leaves that are certainly like those of a *Primula*. Farrer discussed its affinity to *O. Engleri* and *O. viola grandis*, and then went on:

“Nor does it lag in beauty, though not rivalling the glory of the true *O. Farreri*. Here the emarginate turned-back lobes are in sixes or sevens, narrow, more or less entire, broadening to the cleft at their end, and the colour is superb, being really less of a violet-blue than of real sapphire, or very dark, cornflower one. In other words, the red colouring of all purple Primulas is here reduced to an absolute minimum; in paint the blue called French requires only the most cautious touch of the crimson called Alizarin. Like stars of blue velvet midnight this strange beauty, in occasional outbursts, dots the gullies and dips of the high alpine lawns or peers amid the little Rhododendrons.”

On the year before we had found a tiny, frail *Primula*, *P. silænsis* (F. 1208), on the Chimili, but not in flower. There it grew in colonies on mossy boulders or in silt

by the burnside. Farrer was taken by its appearance and bewailed the fact that we had spotted it too late. On the Chawchi he saw it again:

“Learn then, that *Primula* F. 1208 and 1695 proves well worth both the trouble and the delay. I had had, indeed, my doubts of its beauty, but it now turns out a most dainty little gem with delicate stems of 2-3 inches, each, as a rule, swinging out a brace of bells, in so bloomy a shade of amethyst-rose as quite recalls the indescribable tones of *P. secundiflora*.”

Then he went on to describe the Shing Hong *Primula*, *P. Agleniana*, found previously by Forrest in bloom:

“And then, there is the Shing Hong *Primula* itself at last in bloom, no longer rheum-like masses of red snouts pushing up. And what shall I say of this? ‘The most beautiful *Primula* I have ever seen’? Will somebody say they seem to have heard me say this before? Surely not, unless it be of *P. sonchifolia*, which is, indeed, for stout, solid overwhelmingness as far ahead at the top as this one is for its unique combination of elegance and sumptuousness. I will prepare you gently. White *Primulas* are not common, are they? And yet rarer in gardens. What are you going to say, then, to a great clumping species which starts as a *sonchifolia*, and then sends up, with the leaves, an 8-inch stem, from which develop 2-3 pendant flowers, in the purest *sikkimensis* style, but about twice the size of any *sikkimensis* ever bloomed, and more Byzantinely bell-shaped? And of the most solid, carved ivory whiteness, very rarely and very faintly tinged with that lovely pink which my paintbox calls *Rose Antique*; with buds like drops of sunset and calyces of maroon-crimson, and a vivid blush of pink or apricot over the tube. I tell you, if we can get this *Primula* into cultivation and keep it there, it will, indeed, have no rival,

except *P. sonchifolia* on the same hypothesis. But the comparison is as silly as between Pavlova and Herakles. In any case, a very white stone should surely mark in horticultural calendars the day when a gardener first set eyes on the opening loveliness of *Primula* F. 1712. Let it be remembered—July the ninth.”

After this his last *Primula* find on the Chawchi, far away down on the Chinese side, sounds tame. This was—

“ A new little *Primula* that stained the turf with sheets of red. And this, indeed, is a beauty, like F. 1208 in habit and charm, but very perennial, forming wide, hard masses, from which arises a dense but dainty population of stems, 2-3 inches high, each carrying two or, rarely, three, open bells of a pure, clean crimson, paling to the lobes, and darkening upwards almost to a bloomy black, to meet the black-maroon of the calyx.”

As far as I know none of these *Primulas* are in cultivation, which is a pity, especially in the case of F. 1712.

NOMOCHARIS.

The *Nomocharis* mentioned in an earlier quotation as having been found by a coolie on the Chinese side of the Chawchi turned out to be *N. aperta*, which had been collected several times before and had been previously named *N. Forrestii*. It was a more robust-looking plant than our *N. pardanthina* var. *Farreri* (F. 988) of the year before. His one magnificent *Nomocharis* of the second year, *N. basilissa* (F. 1738), he found on his way down to Nyitadi again.

“ Something flared out in the bamboo scrub. Could I be mad? Was it *Lilium chalconicum* or *L. Pomponium* on the Nenanson road? No: it was an un-

spotted *Nomocharis* with flowers of a tone unknown to me in all hardy Liliaceæ, of a pure salmon flame-colour that makes even *L. Pomponium* and *Tulipa La Merveille* opaque by comparison, and can only be paralleled in the most glowing notes of *Papaver orientale*. Nor is it abundant, this unique beauty; occasional only, in very narrow limits, among the scrub and bamboo. But with its solitary head, like Little Em'ly, 'hanging a little down.' Oh, what a wonder!"

So down he came with his collections out of the rain and mist, where he could rarely see more than ten yards, to Nyitadi, where it merely rained without the mist. There he rested for a few days before the next trip and read his letters and answered them. On the whole, I think he enjoyed himself on the Chawchi, although now and again one hears the faintest possible grumbles at the damp and the cold. In one of his letters he wrote:

"This latest lot of letters came in by a subsidiary convoy a few days ago, while I was still sitting up in a cloud at 12,000 feet. I sat there for three weeks, my camp perched on the wall-coping of the world with India, Burma, China, and Tibet all fluttering in my view. Once only I saw them, in a chaos of uncharted mountains; after that—well—I enclose a sketch of my unvarying prospect for one and twenty days of undeviating drizzle and drench. You will agree that I'm coming along nicely in my drawing, and learning (assisted by climatic conditions) to avoid the errors of excessive detail? But not only did I stick out my self-appointed time up there, but I even made it a real joy and happiness to do so. I painted flowers and I wrote and all was very pleasant, though everything came to pieces in the wet, and blankets, chairs, clothes, were all continually in a reek, and one's breath steamed on the raw, corroding damp as if all one's high thoughts were indeed only hot air, and life could only be maintained by a constant

stream of 'kittensful' of boiling water, which one alternately sat on, trod on, or used as a muff so as always to keep at least *one* part of one warm for a few minutes. And the muff, you'll think, was *me*; funny old-fashioned dead word that it is. I came down here on the 21st. To see daylight and visible objects again was like having a load of lead lifted off. I could almost have cried."

In a letter to me he gave news of the staff and the marvellous way in which the stores were lasting.

"You must really send real messages to the Dragon," he wrote; "he always grows quite soppy when in reply to his anxious enquiry I make up some. He and all the staff are being quite faultlessly good: he in particular. No trouble about local booze, which yet, I am sure, abounds. Indeed, on the Chawchi I used to see it being borne down past my tent in big vats, accompanying processions of cows and goats stepping delicately downwards, often heralded from afar through the fog overhead by the wails of an invisible poo-cat, loudly disapproving all the proceedings, as she was being joggled over in a cook-pot for sale in the Akhyang, where mice, it seems, are frequent and cats are rare. When I myself got down, I found not only the belated cash, the letters, the rations, but also a *huge* sack full of parcels that made me feel more like a child with his Christmas stocking than I ever hoped to feel again."

Then comes the story of the last trip Farrer made, the August expedition to the Moku-ji. Here he had slightly more favourable weather than he experienced on the Chawchi:

"During the ten days that I have been up the Moku-ji there were moments when it was clear, with rain; there were hours of cloud without. The flowers all about the camp were a picture of gaiety, but how they

are ever going to ripen their seed I am really at a loss to say. Fortunately for fertilisation, the insects up there are of Spartan breeding, and indifferent to wet; in the intervals of biting the collector it is to be hoped that they fertilise his flowers. The camp was just about at the top limit of the alpine coppice; above it a steep region of Bamboos and glades intervened before the high alpine scrub was reached. Just below, several lateral streams plunged down in cataracts to join the main waterfall in a gorge; and the opposite bank towered up and up in crags and gullies to the high crests above."

Farrer deplored the dullness of the ordinary alpine forest, which is nothing uncommon, for around Hpimaw it had the same tone of dusky green with only a rare splash of colour to vary the monotony. In the coppice above, however, he found an elegant *Castanea* and two *Hypericums* that interested him; also a *Daphne* with apricot flowers, a rare colour, but a scraggy plant which he hoped might develop in cultivation to something better than the inconspicuous shrub of the dripping twilight. It was only 18 inches in height. Still higher he found *Lilium giganteum*, and above them *Primula sonchifolia* and *P. euosma*, still in flower in August, an extraordinary fact considering the time they flowered at Hpimaw and the Chimili: but many plants of the year before seemed to flower later in this more northern latitude. The snow also clung to the crannies and gullies of the hillsides far later on in the year.

"Whatever other good things the meadow-slopes contain, only the later weeks of August will reveal. Even now the huge snow-masses block the glen at 10,000 feet, though higher up the last of these are now crashing to pieces unexpectedly with a rumbling roar like avalanches—and in a few days more the crowded violet-sapphire eyes of *P. sonchifolia* will be peering

baldly from the dank brown earth-banks thus revealed."

Although *P. sonchifolia* was so abundant, it was only fine on the Moku-ji; the form on the Chawchi was a miserable thing in comparison with our giant of the Hpimaw Pass. But this seems to be a failing of this wonder, for it has been collected many times, and the forms vary in colour from a mirrored blue sky to a dingy, muddy violet that would be no credit in a garden. Here on the Moku-ji Farrer found no lowland Primulas: there were no Beesianas or Helodoxas or Limnoicas. What he did find was a very fine *Thalictrum* in the lower glades:

"Perhaps it is even *T. Delavayi* in an unrecognisable condition of health, for certainly no plant could look more comfortable-natured and easy to satisfy in any circumstances that also suit *T. aquilegifolium*. It is however, far larger, attaining 6-8 feet, and so impressive, indeed, that while it was still growing I made sure that its flowers would be dull and green. Instead of which, they turn out to be a lovely lavender-blue, produced in enormous, showery panicles, far above the foliage that matches their enormousness, but has all the delicacy of *T. adiantifolium* on a quadrupled scale."

He had found a Sikkimensid Primula on the Chawchi and had not been impressed. There it was—

"feeble, starved, anæmic—all sorts of bad things. Yet on the Moku-ji this same plant is happy, fat, abundant, waxing proud in enormous tussocks in all damp places, beside rills, and even in the moist cliff-chinks and screes above the torrents. Its elegance is inimitable, its profusion of flower-stems beyond praise, and the flowers themselves not only of a fragrance that scents the whole air, but of a moonlit, elfin loveliness that

makes me always see them as phantom blossoms in the fields of the dead. They are of a yellow so vanished as to be virtually white under one's eye, and quite white at ten yards' distance. The countless delicate bells swing and hang with all the demureness of a Sikki-mensid."

Another flower of importance which he found was a rose-coloured *Caltha*:

"It is a *Caltha*, a perfectly plain, ordinary King-Cup, or Marsh Marigold, that sets the whole fashion of its family at defiance, with quite typical ordinary Marsh Marigold flowers indeed, but of so lovely a magenta-rose colour that at first one is always taking them, in the distance, for some large *Primula* of the *Lichiangensis* persuasion."

It has always been a puzzle to me why certain areas in those hills that look perfect places for flowers of all kinds are peculiarly deficient in anything that is attractive. This is the case with the alpine forest, and the same thing applies to some of the alpine lawns. Farrer noticed this too; he wrote:

"These little oases, or lawns, among the Bamboos, are disappointing. I always think their open expanses ought to yield marvels, and toil down towards them assiduously, tearing my way with hopeful heart through the Bamboos. But when I get there, never does any novelty meet my eye; only fine turf, and acres of golden *Potentilla*, and the little crimson *Primula* in sheets, and abundance of a horrid *Pedicularis*, which does its best to be taken for a *Primula*. They are curious places, though, these 'plans,' either in process of becoming lakes or in process of not becoming them, I cannot quite tell which. I think the latter is more likely—that they are old lakes gradually breaking up into ponds, on their

way to becoming land as dry as this climate will permit. At present they present a most oddly artificial appearance like an irregular expanse of rice-pools, each banked up from the other by a thin rampart, along which one tight-ropes among the Bamboos to the next comparatively open space, where one always hopes one may not meet Mrs. Bear in an unpropitious moment of bringing up her family.

“Let us, therefore, reascend to the heights. This means fighting up through the cane-brake for a few hours, until we come into the first open slope that slides away from the cliffs overhead. Here *Rodgersia* at once abounds, and the *Dicranostygma Meconopsis*, and blue *Anchusa*, also sprouting *Aconite* and *Cimicifuga*, a green *Thalictrum*, and a huge and hideous *Smilacina* which is a very popular article of diet. Higher up one comes into the zone of *Anemone narcissiflora*, in stretches like snowdrifts, but the great white *Primula* is very rarely and very poorly to be seen until over on the Chinese side. . . . The very moment the coll is reached, there the plant is; and down on the Chinese side it abounds in drifts and masses among the snow-white *Anemones*, which often get taken for it from afar. But even yet the snow-fields hold possession, and the full riches of these valley-heads remain still to be unfolded. I do not believe they will have much more to unfold. And, after all, with the great white *Primula* alone, they would already have yielded fairly well. Certainly the rocks and cliffs above show but little. They are moist, they are mossy, they seem to offer every facility. But, apart from a graceful if not particularly interesting yellow *Corydalis*, they rewarded me with nothing except fine masses of *Scrophularia Delavayi*. This certainly is a lovely thing. One is not accustomed to think of *Scrophularias* as even tolerable, but I shall be thoroughly pleased if I can get *S. Delavayi* home to England and see it made happy there. It is low and lax, not a foot high, and its large flowers are a most unusual pure and blazing yellow;

it loves cold, dank places among stones in the high-alpine region, and there it shines like an electric flame. The only other rival for our attention at present is a Thistle which starts life in quite a proper, ordinary way, but ere long develops a fancy for becoming a cobweb or a Saussurea, and sends up its buds in a dense great ball of glistening silver gossamer.

“Where the high tops are all rock or Rhododendron, there is no point in yet ascending them, but we may as well now worry our way up to a towering headland that appears bald of scrub. The toil is rather like that of climbing a long slope of Heather, three times as deep as normal Heather, and full of snags and rocks and pitfalls. The pleasure, however, of attaining the smooth skull-cap of the hill is ample reward, so gay a galaxy of flowers is immediately unrolled at one’s feet. One treads a velvety lawn entirely hidden in a carpet of Rhododendron, Potentilla, and Aster. The Potentillas alone, after a long course of sunlessness and cloud, dazzle one; and the delight, after weeks of bamboo-brake and scrub, of feeling light and free on velvety, springy, open ground, is something memorable in itself. Unfortunately, however, snow is the limit of the scene; it does not fulfil its glittering promise of any novelty. No cushion-Primula (which is very odd); not even any version of *P. coryphæa* or *P. moscophora* (which seems even odder); only the fruiting heads of *P. nuda* standing up all about. Nor is the Aster as yet a sensational species, though quite a pretty little bright purple Daisy in the fine turf. So now, as the clouds are still deep around us, and it would not be advisable to lose what way there is among these precipices, we had best return down the coll, and thence, again down and down, to the camp. One more period of exploration up on the highest tops of the Chawchi, and discovery will, I suppose, be ended for the year, and nothing will be left to do but to rest and gather strength again, against the final whirlwind of the harvest.”

As the editor of the *Gardeners' Chronicle* so justly remarked, with that rather prophetic sentence Farrer finished the last article that he wrote, or, at least, that arrived home. Letters still came from him. On one dated August 11 he wrote:

“ All this country, on the western side of the frontier wall, weeps incessantly to have been torn from that immemorial mistress (China): never have I known a country to cry so constantly. Niobe on Sipyles was self-controlled by comparison! I am being given every chance of becoming a saint or a sage if I don't incidentally become a corpse or a sponge in the process. You must judge from my letters how you think I am developing under the constant drench. I am now down here for a week, in my funny little Ritz of a shanty: and found your letter on my arrival the day before yesterday as a real 'corpse-reviver' after a very long descent from the mountains, in the course of which the caravan walked into a bee-house, and was most drastically resented by the bees; nasty Danaides of things that they are, always drunk, and killing their husbands. . . .”

In another letter is given a very good idea of his iron self-control:

“ I am surprising myself in a great many ways, but particularly in my unsuspected power of managing my nerves—turning them on or off like bath-taps, at different pressures, so as to continue happy. Down here, of course, the task is easy: up in the mountains it does require determination and dexterity. It wouldn't, naturally, if ever things were visible or pleasant; but an unvarying life of sapping fog does need the resolution of happiness pulling tight, and draw out one's reserves of serenity—to such an extent that, after four days of being down here again, I feel, as it were, my soul's banking account (I wish it were my other one) swelling sensibly,

and vigour and joy pulsating back into my control reservoir, along all the veins of my spirit! I sincerely believe that quite a number of people would go to pieces under these adversities: but somehow, so far, they only challenge the odd sort of strength there seems to be in my nature, and, up to the present, have been quite baffled in their attempts to chip my tranquillity. But now, *why* do these mountains hate me so? No others ever have. But these, they *won't* look at me: they won't let me so much as look at them: for all these months on end you might never know that they were there at all, straight overhead: so sullenly do they sit in their widow's crêpe of cloud, and cry, and cry, and cry, and cry. It is all temper and silly sulks: but no, they won't hear either reason or wooing. And they are too big to take a stick to. Incompatibility of temper will part us very willingly in November. In fact, at the moment, I am simply waiting here for the next partial intermission of tears: I was to have gone up to-morrow, but as this last expedition (before the enforced ones of the harvest) is rather a side-show, I have told myself firmly that I won't go up as long as there is absolutely no prospect of anything but unbroken wet and gloom. I have got to a point where it is no bad thing to husband one's endurances a little, though, as you say, and the secret of the whole happiness of it is that, at least, wet or dry, there's always calm—no bills, no bores, nothing but unruffled possession of oneself."

In a letter to me he said:

"Mr. Bhaju now does all the spessers, and the Dragon, on receiving yesterday a long string of made-up messages from you, became moist with emotion (*not* drink) and clasped his hands, and launched into a long incomprehensible tale about a beautiful watch, desiring all his affection and duty to 'Small Master.' The chokra distinguished himself, amid general laughter, by the

alacrity with which he fled before the Beesen on the way down from the Moku-ji. How the ascending coolies can have missed these in the morning no one can tell: their theory is that Beesen must still have been abed. Beesen certainly weren't a few hours later! Mercifully their stings hurt surprisingly little."

In the same letter he described a bout of fever:

"I had actually assumed pen to pour forth my enthusiasm over your proposals when all sorts of odd things began to happen inside: a faint malaise, voluptuous stretchings and yawnings, fine delicious little thrills all over me. A few minutes more, and I realised that I was in for my first recrudescence of fever since leaving Maymyo. To the prescribed remedies, including a strong whiskey-and-soda, I immediately flew, but the only result was a magnificent reproduction of Jonah's whale; and I spent the afternoon in chattering prostration and the evening in a wan convalescence that, however seraphic, admitted of no more correspondence. To-day, though, I am quite in health again."

CHAPTER IV

THE END

ALTHOUGH Farrer's articles cease on his return from the Moku-ji Pass, he actually made the last trip to the high tops of the Chawchi towards the end of August and returned to Nyitadi on the ninth of September. His last letter to me was dated September 11. He seemed to have recovered entirely from his fever and to have been in the best of spirits, for he wrote in a most wholesome strain of what he proposed doing in the future:

“ Yours, beloved sir, of June 23 just to hand. Gradually my friends seem to draw nearer, as I get answers to my various letters from further and further up the valley. Just as I'm leaving, you and the rest will just about have arrived, as it were, in Mitters !”

Then he continued:

“ I only came down on the 9th from my third fortnight up on the Chawchi, where, after the first inevitable sadness of the year's turn, and no more flowers, and the highest tops rather disappointing (but they always are), I settled to with rapture on the first seeds, which will go off to Edinburgh by this mail. This year, too, I am making endless fusses about packing: wet sand, and Lord knows what all. Actually, I believe, I am now through the worst of the weather: I am told September has only violent brief rains, and October none: otherwise I should attribute the late period of tolerableness on the Chawchi to the influence of Jujuina [a little Aztec stone figure given Farrer as a mascot before leaving London],

whom for the first time this year I took up with me in a box. All continues to go, in fact, remarkably well, and I myself am as yet in a really remarkable condition of repair. Nor have I suffered in the least from solitude: nor, really, from fatigue. And now I have a clear month down here to recuperate, before the full fury of the harvest begins on October 9, or thereabouts. Not a shanty at Hpimaw but is a palace to this pellucid cow-house: but it has become quite home and Capua, even though I now breakfast at 7, simply because the light so streams in at every pore and through the open gables that after 6 it is impossible to get any more sleep!

“No words can describe the goodness of the staff: the Dragon has been a tower of reinforced concrete all the summer, and if Mr. Bhaju does love his pay and his pence, he certainly is at pains to earn them. I told you how he has taken all the specimens out of my hands? And now he is doing as much with the seed-washing. But the other day I had a yet more striking proof of how damnably bad a master I must be, to get such damned good service. We had come down from the Moku-ji, and I had ordered a fortnight's camp up on the Chawchi for August 18. The weather was foul: but it then became so outrageous and settled that on the morning itself I was told the coolies could not get up the track. ‘All right,’ says I, nothing loath, ‘we'll put things off till the 26th, and give it time to improve: as it certainly couldn't get *any* worse without bursting its bladder.’ ‘Very well,’ says Mr. Bhaju (I paraphrase him), ‘then I and small orderly will go off for three days up onto the Moku-ji, and get the seed of *P. sonchifolia*.’ And so they did, and a damned good lot too. But I was really touched, as I shouldn't, personally, have *dreamt* of expecting or asking anyone to stir a step in such weather. You would not have turned a yellow dog from the door: Regan and Gonneril themselves would have pressed their father to stay the night.”

That must have been one of the last letters that he wrote, and after that date it becomes very difficult to find out exactly what did happen. In a letter Bhaju definitely stated that Farrer fell ill on October 1. No doubt he was busy with his seeds, his painting, and his writing. Unfortunately only a certain portion of his belongings were saved, and I am sure the staff salvaged those which had the greatest value in their eyes, such as tents and actual stores, for which they might have to account on their return to Myitkina, not realising that the seeds and miscellaneous papers were worth a thousand times the value of the canvas and tins which they had so carefully saved.

As far as can be gathered Farrer fell ill on October 1 and suffered from a cough and pains in the chest. On the 13th he became suddenly worse and refused all food. On October 17 he died.

The first suspicion that anything was wrong was the return of a cable that I had sent him about October 24, marked "addressee deceased," followed within a day or two by an official notification of his death from the Indian Government. It is stated that he died of diphtheria. This I cannot, and will not, believe, for, on enquiry, I cannot find definite proof that diphtheria is known in those hills. In addition, Nyitadi lay on a spur of the great frontier range, and above were no villages and no inhabitants, only untrodden folds of the hills, so steep that anything impure must have been swept down in the hill torrents to the N'mai, thousands of feet below.

Although in his letters he set a bold face when writing about the climate, yet we occasionally get a glimpse of his weary desperation at week after week and month after month of weather when he never felt dry, and of days when he never saw the sun. There is no doubt that he felt the slow sapping of his vitality

under this treatment, although he would be the last person to admit it. For years he had suffered from a weakness in his throat. He may have had ulceration; it might have been pneumonia; perhaps it was both: but such theories lead nowhere.

Apparently the staff did all that was possible: the Dragon was certainly dependable in all cases of emergency, while Bhaju was level-headed and never put about. I heard afterwards that he made a wonderful journey to Konglu for medical assistance, a journey worthy of his hardy race. He made the journey there and back in an incredibly short space of time, I believe just over three days, refusing to rest either on the way or at Konglu. His efforts, however, were of no avail, although he arrived back just before Farrer's death. Everyone seems to have been unremitting in their devotion and to have nursed him with all the care that was in their power. With all their faults—and they were petty—both Bhaju and Suriman were as good followers as it is possible to get in the East, where devoted servants are by no means uncommon. Both of them served Farrer absolutely whole-heartedly.

After his death they made a coffin and carried it on coolie-back to Konglu, where he was buried in a clearing above the fort on Konglu-bum; and there he lies with a simple cross above his grave. While Konglu was a military post, it was carefully tended by the military police, and I am sure that now that the post is given up, it is just as carefully kept by the local Akiwa.

Some months later I received a letter from Bhaju, which I give in full. I had wished that he had written it in his native Ghurkali, which would have given a clearer understanding of his feelings. As it is, this letter was dictated to a native clerk at Myitkina, and those who know the semi-educated Babu will realise

how they embroider their letters to suit what they consider to be Western taste:

“ I received your kind favour of the 19th November 1920 and become glad to read all the contains, but we all together with Burra Sahab Bahadur proceeded to Mitadi hill and arrived there on the 27th April 1920 with safely, and halted there for about 10 or 11 days for taking rest, after this we proceeded to Laludi hill and remained there for about 7 days for collecting flowers, but owing to the heavy snow we could not collect many flowers there at that time, and we came back again to Mitadi hill and after 6 days we proceeded two times to Mokuji hill, three times to Laludi hill and one time to Chingchang Bum hill, and we have collected many kinds of flowers from these three places, there were many hills and falling the snow up to September 1920, but I take care to my master (Burra Sahab) in every way for crossing the river and mounting the hills etc. but owing to our misfortune that we have lost our breavery and honesty officer there in the way, also I beg to state that (Burra Sahab Bahadur) was suffering from caugh and chests pain from 1st October 1920 to 13th October 1920, but not so serious, also he never tired up to 13th October 1920 which he converses between us distinctly and properly, but after this, from 14th October 1920 he discontinued to take his food except soda water, wiskly and medicines for his benefit but it has been unsuccessful at least and without giving any pain and trouble to us he breathe his last on the morning of the 17th October 1920 at about 11.30 A.M. I at once sent to messengers to Konglu, and I had made a strong box with six coolies there and on the next morning of the 18th October 1920 I took the dead body of my master with 8 coolies to Konglabum, we arrived there on the 22nd October 1920 and buried the dead body there at Konglabum on the 23rd October 1920 with a very careful as much as I can for making the stone's box inside of the pit with a strong wooden box, and we

came back with all the furnitures of my master to Putao and handed over the same to the civil officer there, we arrived at Myitkina on the 19th December 1920.

“ Further I beg to state that there were many kinds of flowers and seeds there at that time and we could not bring them off. I know the place very well and wishes to go there once more with you if you come again in Burma and allow me to accompany you.

“ I have served about 2 years under my late master with all my heart, but owing to my bad luck I have lost my master in the way, now I pray to the God that he may be remembered to my late master for a long time.

“ Kindly convey my best regards and salam to the parents and friends of my late master.

“ I beg to remain, Sir, your most obedient servant.

“ SEPOY JANGE BHAJU.”

In a way that is an unsatisfactory letter; it tells so much that we know already and leaves out so much that we should like to know; but through it there runs a vein that shows a devotion to Farrer that is admirable, a devotion which undoubtedly all the staff felt. This says much for Farrer's character, for as a rule he was detached in his dealings with natives; he was really not sympathetic towards the Oriental mind. I am quite sure, at any rate, that the staff did not understand him. Perhaps it was just this aloofness that was partly a cause of this devotion, that and his extraordinary keenness for his work. He asked much of them, but nothing that he himself would not undertake. He was no fair-weather traveller, and it was his willingness, indeed eagerness, to share all the privations and discomforts with the staff that endeared him to them.

They responded nobly to this treatment. In Bhaju Farrer had a stalwart champion, and without him I doubt if he could have accomplished much the second

year. The first year was not a fair test, for we were never more than five days' march from Hpimaw, and at Hpimaw there were always a hundred or more Ghurkas, so the staff always had their fellow-countrymen to amuse them at our base. But at Nyitadi there was no one nearer than Konglu on the other side of the flooded N'mai.

Farrer and Bhaju certainly had one thing in common, their love of flowers. Bhaju had an interest in them and a knowledge of them that must be unique in an uneducated native. It is true that he was paid to help in their collection, but his keenness went beyond what could be expected from a paid servant. The Dragon also proved his worth, but he was formed in a more stolid mould than Bhaju, and did what was expected of him with a dog-like devotion of which he had shown many signs the year before. Bhaju was certainly the driving force in the staff, and part of the praise due to the rest of them was their willingness to follow his lead. As a staff for an expedition of this kind they could hardly be bettered.

Perhaps there is little in this book that holds Farrer up to the mirror. His was not an easy character to read, and those who imagine that they can resurrect his complex emotions from his writings are probably mistaken. The longer I knew him the more difficult I found it to crystallise my ideas about him. He had as many facets as a diamond. When he was engaged on anything to do with plants, he was like a being transformed. Then he was direct in his emotions, sometimes abruptly so, and words flowed off his tongue or from his pen with a vigour and directness that left no doubt of his meaning. But remove him from his plants, and everything was clothed and lighted in the habit and reflection of his immediate mood. In affairs of life he was subtle; but that was his nature. He often

led his friends a merry dance in which there was no waiting, in order to give time for the laggards to draw level with him. He forced us in an extraordinary fashion to take him as we found him. He brooked no revolt against his authority; yet we were all willing to follow him. Apart from his profound knowledge of history and literature he had a magnificent brain, and a biting, and often cruel, wit that he used with perfect impartiality.

His whole life really was centred in plants, and more in the finding of plants than in growing them. His garden at Ingleborough certainly amused him, but the pleasure he gained from it was nothing compared to the thrill he derived from finding a new treasure, whether it was in the hills above his home, in the Alps, or in China. He also thrived on solitude and adored the high places, which was partly the cause of his love of plant collecting. There is little need to count the tale of his introductions to our gardens, for many of them are now universally popular, but on the whole he was unlucky, as many of his finest plants have either not come to maturity or have not survived our climate. This was particularly unfortunate in the case of his Kansu plants, for the seed arrived home in the early days of the war when their subsequent treatment was naturally not of the best. Not a single *Primula* from either the Kansu or the Burma expeditions has reached the stage of general distribution among gardens; of the latter I believe that not one survives with the exception of *P. limnoica*. It is a pity, but it is no fault of the growers at home.

His loss is a great blow to all who love flowers as he loved them; but he died in harness, as he would have willed it, and his body lies among the hills which he loved.

APPENDICES

APPENDIX A

THE HARDINESS OF PLANTS FROM UPPER BURMA

AFTER mature consideration I have come to the sad conclusion that most of the plants from Upper Burma are too difficult ever to join the increasing throng of new introductions that are creeping into cultivation.

I use the word "difficult" deliberately, since the term "hardy" is the most misused expression in the gardener's vocabulary. The proper definition of a hardy plant is one that will grow out-of-doors throughout the year. Many plants from Upper Burma fulfil that condition; but hardiness is a very different thing from growing successfully to a glorious maturity. The true term for them is "difficult." They are sulky and will not move.

In order to prove that this is not surprising, let me recapitulate, as briefly as possible, the conditions under which they grow. Upper Burma is a country of great variation of altitude, but, on the whole, plants consistently keep to their own level, a level that has very narrow limits. The various levels may be divided into the following groups:

1. Tropical up to 5,000 feet.
2. Subtropical rain forest, 5,000-9,000 (with an occasional dry area).
3. Bamboo and Rhododendron scrub 9,000-10,500.
4. Alpine lawn with dwarf Rhododendrons, shrubs, and Bamboos, the last in greater or lesser degree, above 10,500.

As far as is known, there is little perpetual snow below latitude 28°, although some of the peaks, north of where Farrer spent his last year, top 19,000. On the other hand, snow lies so long above 15,000 feet in some years that there is little of interest in plant life to be found above the 15,000-foot line. Below that, from 11,000-15,000, the ground is covered with snow on an average from November 12 to May 30, from 10,000-11,000 from December 1 to April 15. From 8,000-10,000 the snow varies according to exposure, but is usually intermittent. Below 8,000 it rarely lies. These variations naturally vary, but they may be taken as

an average on the Burmese side of the frontier. April, May, and the first half of June are hot, dry months. The latter half of June consists of broken weather working up to the rains, which last from July 1 to the first week in October with an occasional break in August of from ten days to three weeks. October is showery, and November usually fine and cold. The rainfall varies from 85 inches to 150 inches or more, and falls mostly in the rainy months of July, August, and September. Although the ground is sodden, yet drainage is perfect, and marshes and springs, except in the valley bottoms, are few. I have no data regarding maximum and minimum temperatures, and, of course, these vary enormously according to exposure, but I should guess that the maximum and minimum (Fahrenheit) at various heights are as follows: 4,000 feet, 95° - 45° ; 8,000 feet, 90° - 25° ; 9,000 feet, 80° - 20° ; 10,000 feet, 75° - 12° ; 11,000 feet, 65° - 0° ; 12,000 feet 60° to -5° . I do not think I am exaggerating if I say that within the range of 4,000-15,000 feet there is a larger number of species and genera than in any other area of the same size in the world, many of them magnificent flowering plants.

It must be remembered that the seasons and the climate are much more consistent in Upper Burma than in the British Isles. Plants that flower during the few hot weeks are ready for them; they know they will come within well-defined limits of time. The same applies to plants that flower during the Rains. This and the fact that plants keep so definitely within the bounds of their particular elevation infers that most of the plants of Upper Burma confine themselves strictly to areas in which conditions are most favourable to them. I do not mean to say that their contour of elevation on the hillsides might not be extended, but the fight for life is so severe in those hills that only when they are at the very peak of their powers are they able to defeat the encroachment of their neighbours. They can gain this peak only within certain narrow and well-defined limits. If that theory is right, it will follow that in time they will lose the power of adapting themselves to other conditions, since in the wild they only exist when conditions are perfect. This will explain the fact that, although many will survive in our gardens, very few will make successful garden plants. There are, of course, exceptions, such as a *Deutzia*, a *Philadelphus*, a *Spiræa*, *Berberis Wallichianum* and *B. capillaris*, a few *Rhododendrons*, such as *R. myrtilloides* and *R. calostrotum* that we found, and also a few plants of Kingdon Ward's, such as his *R. hæmatodes* from Imaw Bum; but they are a tiny proportion of all the hundreds of which seed has been sent home from Upper Burma. Hardly

a Primula or a Magnolia or a Cremanthodium or a Saxifrage or a Gentian or anything liliaceous survives, species of all of which, with the exception of Cremanthodium, have succeeded admirably in this country when sent from other parts of the world.

This note may be an explanation of the difficulties with which we have to contend in trying to grow Upper Burmese plants, but I can give no advice on how to get over the difficulty, except the vague suggestion that plants grown from imported seed should be brought to maturity at the earliest possible moment in the hope that their progeny may prove more amenable to such conditions as we can give them. There is something in this advice, for the improvement in hardiness of the second generation of plants from other parts of Eastern Asia has already been proved.

APPENDIX B

RHODODENDRONS COLLECTED BY REGINALD FARRER

A LIST OF THE SPECIMENS IN THE HERBARIUM OF THE ROYAL BOTANIC GARDEN, EDINBURGH, WITH TRANSCRIPTIONS OF FARRER'S FIELD LABELS AND NOTES ON THE DISCOVERY AND INTRODUCTION OF THE SPECIES, BY HELEN T. MAXWELL

FARRER appears to have collected material, seed or specimens of 118 Rhododendrons. Of these 107 specimens are in the Herbarium of the Edinburgh Royal Botanic Garden. I have failed to find specimens of the remaining numbers, but six of the eleven not found in the Herbarium are in cultivation. Farrer may have collected seed only of these. In a separate list I give Farrer's comments on the numbers in cultivation, but not represented by a specimen in the Edinburgh Herbarium.

Of the 107 specimens in the Herbarium, twenty-four have been described as new species discovered by Farrer. Nine of these Farrer type-numbers are in cultivation, and Farrer must be credited with their introduction. Species discovered by other collectors and also found by Farrer number fifty, and of these Farrer introduced eight.

The Farrer Rhododendron specimens fall into two sets. Of the finds made in Kansu and its marches in 1914-15 only six Rhododendrons are represented in the Herbarium at Edinburgh, but three of these have been described as new species. All the other specimens were collected in 1919-20 in N.E. Upper Burma. In this area Farrer found many of the species previously discovered by Forrest and Ward. Moreover, he discovered in this region twenty-one new species.

63. *Rh. Reginaldi*, Balf. f.—“A comely pyramidal bush or rounded-headed tree of 12-15 feet. Exceedingly profuse with very lovely pale pink flowers. Only seen above 9,000 feet in one series of wooded or coppiced mountain glens on the 10,000 feet

range intervening between the main chains of Siku and Satanee, not (for once) on limestone, but on a red shale. 12th May, 1914.”

First discovery. In cultivation. Introduced by Farrer.

79. *Rh. invictum*, *Balf. f. et Farrer*.—“ A frail bush of 4-7 feet. Not uncommon in the alpine coppice of the Siku-Satanee ranges at 8-9,000 feet. April-May, 1914.”

First discovery. In cultivation. Introduced by Farrer.

88. *Rh. præclarum*, *Balf. f. et Farrer*.—“ A decumbent, straggling little plant. On cool rock surfaces and mossy banks about beck-gullies high up on the Thundercrown range, but not common till you get to Lotus Mountain and the main Min San. 20th June, 1914.”

First discovery. Not in cultivation.

119. *Rh. violaceum*, *Rehd. et Wils.*—“ A small neat bush of 9-12 inches or more. Flowers of pinkish violet, foliage of bronzy grey. Abundant as heather in the high alpine turf of the Thundercrown range at 11-12,000 feet.”

Discovered by Wilson, 1908. The Farrer number is in cultivation.

510. *Rh. thymifolium*, *Maxim.*—“ Abundant on the cooler alpine slopes of the Da-Tung valleys, composing the coppice between 10-12,000 feet. June, 1915.”

Not introduced by Farrer.

511. *Rh. capitatum*, *Maxim.*—“ With Farrer 510, flowering a week or so later.”

This number not in cultivation. Discovered by Przewalski.

800. *Rh. indicum*, *Sweet.*—“ On boulder beds along the margins (only) of the Nmai Hka and Ngaw Chang. Flowers going over on the former, 2nd April, and in full bloom on the latter, 6th April. Pure salmon-scarlet. 7th April, 1919. 2-3,000 feet. Banks of Nmai Hka and Ngaw Chang.”

This number not in cultivation.

801. *Rh. Mackenzianum*, *Forrest.*—“ Forms a fine tree with a bare bold bole like a Scotch fir but red, with flaking bark. Can attain 40 feet with a diameter of 15 inches. Very floriferous, in solid rounded masses of blossom, in full beauty up at Hpimaw by 6th April. Flowers very pale lilac-pink with deeper centre

and brownish tinge in throat of upper segment and intensely fragrant. Purpled exterior of tube showing through. Open places of the forest. 7,500 feet. Hpyepat Pass, Langyang, Hpimaw. 6th April, 1919."

First discovered by Forrest. This number in cultivation. First introduced by Forrest.

806. *Azalea Species*.—"Occurs on Htawgaw Hill, but abounds on the coppiced slopes above the Ngaw Chang between Khamkom and Blackrock, where it becomes a much taller, straggling bush (of some 15 feet) than the small shrub that it presents at Htawgaw. Flowers very pale and washy, scentless. 4,000 feet. 5th April, 1919."

This number not in cultivation.

807. *Rh. leptothrium*, *Balf. f. et Forrest*.—"A tall, dense, and floriferous bush covered with scentless magenta-rose flowers, occurring in a group at the corner of the road near the top of Htawgaw Hill. No doubt belongs to the Ngaw Chang Valley. 4,000 feet. 4th April, 1919."

Discovered by Forrest. Introduced by Forrest. This Farrer number not in cultivation.

808. *Azalea Species*.—"So far a ἀπαξ εἶδομενον from a steep shady bank on a granite cliff, where the brilliant pure cerise of its very abundant blossom drew attention from afar. No scent. 4,000 feet. Ngaw Chang Banks. 5th April, 1919."

This number is in cultivation.

809. *Rh. Sp., Maddeni Series*.—"Flowers large and lovely, pure white with yellowish throats, very fragrant and almost over by April 5th. Extremely hard gorges to secure. Hanging from shady gigantic cliffs, in the deepest gorges of Ngaw Chang. 3,000 feet. Banks of Ngaw Chang. 5th April, 1919."

This number is in cultivation.

811. *Rh. araiophyllum*, *Balf. f. et W. W. Sm.*—"A thin and straggling small tree of 15 feet. Flowers pure white with a basal blotch and frecklings of pure crimson. Fragrant, coming into bloom April 10th. Shady places of the upper jungle. 7,500-8,000 feet. Above Hpimaw in the jungle. 10th April, 1919."

Discovered by Forrest. Introduced by Forrest. This number is in cultivation.

812. *Rh. tanastylum*, Balf. f. et Ward.—“ Loose spindly tree of 20-30 feet associated with Farrer 811 in the shady places of the upper jungle. Five-lobed flowers of rich crimson-scarlet, very dimly freckled with brownish dots on all five lobes. Scentless, rather waxy texture. 8,000 feet. Above Hpimaw in jungle. 10th April, 1919.”

Discovered by Ward. Introduced by Farrer. This number is in cultivation.

813. *Rh. cerinum*, Balf. f. et Forrest.—Scentless flowers of bright sulphur yellow. Winter seed still lingering. = 1550. Dead tree in jungle above Hpimaw. 8,000 feet. Epiphytic on tree-trunks in the upper jungle. 11th April, 1919.”

Discovered by Forrest. Introduced by Farrer. This number is in cultivation.

814. *Rh. heptamerum*, Balf. f.—“ Thin, grey-boled tree of 20 feet. Flowers numerous, scentless, bunched. 7 lobed, of full crimson with faint lines of pallor in the throat. Not so bright and delicate as Farrer 812 nor so brilliant as Farrer 815. Opener places of the upper jungle above Hpimaw among bamboo brakes. 8,500-9,000 feet. 11th April, 1919.”

Discovered by Farrer. Introduced by Farrer. This number is in cultivation.

815. *Rh. æmulorum*, Balf. f.—“ A dwarfish, massy branched thin tree of 15 feet with brown felted leaves and rather waxy flowers of intense scarlet crimson, without scent. Just in bloom on the southerly facing dip of the Hpimaw Pass, on both sides of which it abounds amid the small bamboo brake. 10,000 feet. 11th April, 1919.”

Discovered by Forrest. Introduced by Forrest and Farrer. This number is in cultivation.

842. *Rh. bullatum*, Franch.—“ Very thin and trailing, epiphytic (usually) or terrestrial, in fairly deep shade of forest on the way up to the Pass. Flowers very wide and shallow, pure white with yellow at base, strongly clove-scented. In the open on rocks. A sturdy little shrub, with developed carmine flush on buds and blossoms. 8,500 feet. Above Hpimaw. 19th April, 1919.”

Discovered by Delavay. Introduced by Forrest. This number is in cultivation.

848. *Rh. supranubium*, Hutch.—“ Rare, in the highest tree tops about Hpimaw, and yet more rarely descending on to terra firma.

A small delicate bush of 12-24 inches (up to 3-4 feet) with very large and lovely flowers, intensely fragrant, of pure rose-flushed white with a yellow base. In April-May, carried solitary or in pairs. A most exquisite beauty. 8,000 feet."

Discovered by Forrest. Introduced by Forrest. This number is in cultivation.

861. *Rh. commodum*, *Balf. f. et Forrest.*

Discovered by Forrest. This number is not in cultivation.

862. *Rh. araiophyllum*. *Balf. f. et W. W. Sm.*—"A straggling, thin tree in the shade of the alpine woodland, not (by me) distinguishable from Farrer 811 except by drooping foliage and flowers of soft light pink. Just coming into bloom, 20th April, 1919. 8,700 feet. Hpimaw Hill."

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation. See also Farrer 811.

863. *Rh. arizelum*, *Balf. f. et Forrest.*—"Low, many branched, red-barked tree with thick trusses of dead, creamy-white flowers without scent. Just coming out 20th April, 1919. One of the prevailing Rhododendrons as you near the Pass at Hpimaw. 9,500-10,500 feet."

Discovered by Forrest. Introduced by Forrest. This number is in cultivation.

872. *Rh. sidereum*, *Balf. f.*—"A prevailing Rhododendron in the upper forest zone. Flowers creamy white, stamens 16, flower-head elevated on conspicuous rhachis. A tree of 20-30 feet. Just coming into bloom. Scentless, reverse of leaves, as it were, lacquered silver on copper that dimly shines through. A fine thing. Hpimaw Hill. 9-10,500 feet. 28th April, 1919."

Discovered by Captain Abbay in 1912, and rediscovered by Forrest, Farrer and Ward in 1919. Introduced by Farrer and Forrest. This number is in cultivation.

873. *aff. Rh. basilicum*, *Balf. f. et W. W. Sm.*—"A medium-sized tree. Flowers varying to creamy white from a lovely rich flesh-rose. Sometimes seems to pass towards Farrer 863 (by hybridisation?), but differentiable at once by the much more detersile indumentum, which usually leaves the reverses wholly white, by the definite aloe on the leaf petioles. Hpimaw Pass. 10,700-11,000 feet. 6th May, 1919."

Discovered by Forrest. Introduced by Forrest. This number is in cultivation.

874. *Rh. fulvum*, Forrest et W. W. Sm.—“ Very floriferous, a lovely sight on the northward facing slope of the Hpimaw Pass. Opposite to Farrer 815 on the southerly. A low sprawling tree with flowers pale pink to deeper. 10,700 feet. 6th May, 1919.”

Discovered by Forrest. Introduced by Forrest. This number is in cultivation.

875. *Rh. desquamatum*, Balf. f. et Forrest.—“ A small tree laden with graceful loose bunches of ponticum coloured blossoms with red styles and a faint scent. In deep alpine gullies over the southerly ridge of Hpimaw Pass. 10,000 feet. 6th May, 1919.”

Discovered by Forrest. Introduced by Forrest. This number is in cultivation.

876. *Rh. oulotrichum*, Balf. f. et Forrest.—“ A small nude mollis-azaleoid bush, among scant scrub and opener places of the Bamboo-brake along the high ridges, above Hpimaw Pass. Only just beginning to open its sulphur yellow flowers, very like those of Farrer 813. 11-12,000 feet. 6th May, 1919.”

Discovered by Forrest. Introduced by Farrer. This number is in cultivation.

877. *Rh. phoenicodum*, Balf. f. et Farrer.—“ A small 6-8 feet bush. This specimen just unfolding bloom in a warm gully. Flowers scentless, fiery scarlet and profusely borne, making a fine contrast with the dark grey-green foliage and its white reverse. Apparently diffused on the Chinese side of the Hpimaw Pass. 10,000 feet. 6th May, 1919.”

Discovered by Farrer. Introduced by Farrer. This number is in cultivation.

887. *Rh. habrotrichum*, Balf. f. et W. W. Sm.—“ A tree so floriferous that one specimen was noted from far up on the arête of the Hpimaw Pass. Remote in the depths of the jungle valley below. Flowers soft aniline pink, looking pure rose in the distance. No scent. 9,500 feet. 7th May, 1919.”

Discovered by Forrest. Introduced by Forrest. This number is in cultivation. Some seedlings said to be *Rh. glischrum*.

888. *Rh. sperabile*, Balf. f. et Farrer.—“ A small bush with erect new shoots, their shaggy investiture of white wool contrasting finely with the pure clear scarlet of the rather waxy flowers hanging below and almost all falling when found. With Farrer 887 in ravine below the Hpimaw Pass. An odd parallel, Farrer 877,

on the Chinese side (also on Burmese side, just coming to its full and with a fawnier indumentum, May 10th). 10,000 feet. 7th May, 1919."

Discovered by Farrer. Introduced by Farrer. This number is in cultivation.

891. *Rh. zaleucum*, Balf. f. et W. W. Sm.—“ A small straggling tree just beginning to break into its *second* flowering. Blossoms azaleoid, pinkish, fragrant, with deeper flush at throat. 9,500 feet. Hpimaw Hill. 10th May, 1919.”

Discovered by Forrest. Introduced by Forrest. This number is in cultivation.

917. *Azalea* sp.—“ Perhaps=Farrer 808, but flowers aniline pink. Occurs with *Rh. indicum*, but not so commonly up the boulder-bed shores of the Ngaw Chang. A small bush, rather taller and looser than *Rh. indicum*. 5,000 feet. Ngaw Chang Banks. 12th May, 1919.”

This number is not in cultivation.

918. *Rh. megacalyx*, Balf. f. et Ward.—“ A very magnificent sp. A loose bush or very straggling small tree. Flowers very large pure white flushed externally, loose and flopping in texture, so prognathous in opening as to suggest a limp *Gloxinia* and intensely fragrant of clove. Calyx persistent, very large and lightly coloured. Pedicels have an almost blue bloom and in fruit strongly deflexed. Deep shady banks beside deep torrent beds. 6-7,400 feet. At Hpawté. 16th May, 1919.”

Discovered by Ward. Introduced by Forrest. This number is in cultivation.

925. *Triflorum* Series.—“ A little bush in an alpine gully. Chimili Pass. 11,000 feet. 16th May, 1919.”

This number is not in cultivation.

926. *Rh. aiolosalpinx*, Balf. f. et Farrer.—“ A small graceful bush extremely profuse in lovely flowers from pure or creamy white through every shade of waxy fleshy rose to clear rich pink and even crimson. No scent, fine honey glands at the base in almost crested pinched-in folds. A very lovely plant indeed. Common on opener ribs of the bamboo-brake and even below at 11,000 feet along the flat rill sides of the upper torrent courses in half shade. Leaf reverse creamy yellow, purple edged. 11-12,000 feet. Chimili Pass. 16th May, 1919.”

Discovered by Farrer. Introduced by Farrer. This number is in cultivation.

937. *Rh. caloxanthum*, Balf. f. et Farrer.—“ A little bush of 4 feet. Buds vermilion, as they open flush with apricot and tipped with orange-scarlet, fully developed flowers of clear citron yellow. Very attractive. High alpine scrub along the edges of both Hpimaw and Chimili Passes, just coming into bloom on 18th May, 1919.”

Discovered by Farrer. Introduced by Farrer. This number is in cultivation.

938. *Rh. tapeinum*, Balf. f. et Farrer.—“ Just coming into bloom on 18th May, 1919. A low, almost prostrate cushion in the high alpine granite precipices opposite the Chimili Pass. Flowers clear yellow, but of no particular charm.”

Discovered by Farrer. Introduced by Farrer. This number is in cultivation.

959. *Rh. sinogranda*, Balf. f. et W. W. Sm.—Leaf only (20 × 12). “ Flowers all over, but their relics are discernible on one tree across the torrent. Creamy-coloured and incommensurate in size with magnificent foliage, which is at its biggest in young specimens. A thin 20-foot tree from the deep shady gorge of the Chimili torrent (rarer on the Hpimaw Pass). Flower reported ‘ very big.’ 7-9,000 feet. 19th May, 1919.”

Discovered by Forrest. Introduced by Forrest. This number is in cultivation.

979. *Rh. decorum*, Franch. (form).—“ = Farrer 810 *Rh. pterospermum*. A small tree of 15-20 feet. Flowers very large, very fragrant and pure white, but for a tinge of greenish-yellow at the base, borne in big loose heads, externally handsome but for their extreme susceptibility to rain. Inclined to be irregular and sporadic in bloom with a sickly habit. Shoot bracts glandular, crimson. Fruit very large. Edges of woodland through the region between 6-8,000 feet only on Hpimaw Hill. 30th May, 1919.”

Discovered by David. Introduced by Wilson and Forrest. This number is in cultivation, and the plants resemble young plants of Forrest’s *Rh. diaprepes*.

980. *Rh. erileucum*, Balf. f. et Forrest.—“ Resembles Farrer 875, but is clearly distinct, and much later in bloom, with more regular effect of massed bloom and foliage, which is markedly glaucous below and strongly resinous-aromatic. A tidy small tree of 20 feet with flowers in varying shades of ponticum colour. Light

alpine coppice and Rhododendron jungle, from 8-10,000 feet on Hpimaw Hill. 30th May, 1919."

Discovered by Forrest. Introduced by Farrer. This number is in cultivation.

1022. *Rh. facetum*, *Balf. f. et Ward.*—"Tree of 20-30 feet growing in the deep woodland up Hpimaw Hill, quite independently of lime or granite. (All this region is granite, with one thin outcrop of limestone.) Flowers scentless with fine nectaries at base and heavily freckled on all five lobes with frecklings that tend to be horseshoe-shaped and to flow in regular lines. Colour of so dazzling a pure light rose-scarlet as to numb one's sight for some minutes after looking away from it. 8,500-9,000 feet. 13th June, 1919."

Discovered by Ward. Introduced by Farrer and Forrest, 1919. This number is in cultivation.

1023. *Rh. oulotrichum*, *Balf. f. et Forrest.*—"Probably = Farrer 876. In fuller development. Rocky gully on Burmese side of Hpimaw Pass. 10,500 feet. 19th June, 1919."

Discovered by Forrest. Introduced by Farrer. This number is not in cultivation.

1024. *Rh. scyphocalyx*, *Balf. f. et Forrest.*—"A small bush in rocky gully on the west side of Hpimaw Pass. Flowers waxy, scentless, with deep nectaries of a variable colour in shades of apricot, bronze and coppery yellow. Very abundant over all the high alpine region. 10,500 feet. 19th June, 1919."

Discovered by Forrest. Introduced by Farrer and Forrest. This number is in cultivation.

1044. *Rh. crassum*, *Franch.*—"A tree or bush in alpine forest. So far, a rare plant, only in one very small area. Flowers pure white flushed with yellow at the base. Very large and fragrant, opening probably in July. Capsule large, ovoid, 10-valved, much affected by fungus. See also Farrer 1093. Hpimaw Ridge. 9,500 feet. 22nd June, 1919."

Discovered by Delavay. Introduced by Forrest. This number is in cultivation.

1045. *Rh. calostrotum*, *Balf. f. et Ward.*—"Covering the highest tops with a close carpet, suggesting *Rh. Kamschaticum*, but that the flowers are of a much pleasanter warm magenta-rose. The young shoots contrast beautifully with the old, and the flowers

in their very virid milky glaucescence. Hpawshi Bum. 12,600 feet. 24th June, 1919."

Discovered by Ward. Introduced by Farrer. This number is in cultivation.

1046. *Rh. myrtilloides*, Balf. f. et Ward.—“ In all the granite clefts and cliffs of the highest open tops. Flowers waxy with a deep plum-like bloom outside and inside of a hot mahogany red. Very delicate and attractive. Hpimaw Ridge. 12-12,600 feet. 24th June, 1919.”

Discovered by Ward. Introduced by Farrer and Ward. This number is in cultivation.

1047. *Rh. propinquum*, Balf. f. et Ward (in MS.).—“ With the last two numbers on the highest tops, but not, so far as I have seen, so common. Flowers deep violet-purple, but none too freely produced. Hpawshi Bum. 12,600 feet. 24th June, 1919.”

Discovered by Farrer and Ward, 1919. Introduced by Ward. This number is in cultivation.

1065. *Rh. plebeium*, Balf. f. et W. W. Sm.—“ A low, small, straggling bush of 2-4 feet (= Farrer 878 sent in winter seed). Flowers soft rose-pink. Paler inside and handsomely marked with chestnut brown. Foliage resolute, very dark and metallic in colour, strongly aromatic. Among the light dwarf high alpine scrub. 30th June, 1919.”

Discovered by Forrest. Introduced by Forrest. This number is in cultivation.

1093. *Rh. crassum*, Franch.—“ Riverine coppice. Shrub of 12-15 feet. Flowers almost all passed and the remainder spoiled by torrential deluges—very large, pure white, vivid pink in the bud, and sweetly scented (both in bud and flower). Query, is this and Farrer 1044 regional development of one species? Hparé. 4,000 feet. 11th July, 1919.”

Discovered by Delavay. Introduced by Forrest. This number is not in cultivation.

1171. *Rh. calostrotum*, Balf. f. et Ward.—“ (=1045.) Foliaceous flowers frequently, it seems, produced in varying degrees of perfection. The other dwarf Rhododendrons also show the same tendency, but never with anything like the same completeness, hardly getting beyond a shoot here and there tipped with scarlet leaves. 12,500 feet. Chimili. 1st August, 1919.”

Discovered by Ward. Introduced by Farrer. This number is not in cultivation.

1184. *Rh. aperantum*, Balf. f. et Ward.—“Prevalent on the higher open slopes, a sturdy little bush, 12 inches high by 24 across. Always neat, stocky, with the leaves equally stiffly and neatly arranged. All the flower was over, but a lucky secondary bloom reveals it as a very pretty waxy or flesh white, flushing to rose between the lobes and with the five glands at the base of deep carmine. Chimili Alps. 12,900 feet. 3rd August, 1919.”

Discovered by Ward. Introduced by Ward. This number is not in cultivation.

1196. *Rh. cremnastes*, Balf. f. et Farrer.—“Confined to a few gullies facing W. on the ascent of the Chimili Pass, where it is only to be seen in the sheerest and shadiest precipices. Flowers soft bright pink, scentless, with pale chestnut frecklings. 11,000 feet. 8th August, 1919.”

Discovered by Farrer. Introduced by Farrer. Some young plants, under this number, in R.B.G., Edinb., are *Rh. charopæum*.

1343. *Rh. monanthum*, Balf. f. et W. W. Sm.—“A unique occurrence so far. A thin straggling epiphyte on a fallen tree in the uppermost rain forest of Hpimaw Hill, flowering in mid-September. Blossoms clear canary yellow, scentless. 9,000 feet. 1st October, 1919.”

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1505. *Rh. Mackenzianum*, Forrest.—“= Farrer 801. General in the upper rain forest. A remarkable thing in this species is the lengthening of the pedicels during inflorescence, so that before the flowers fall they all become pendulous and for long I thought they had fallen, and were hanging by the crimson style. Konglu, etc. 6-8,000 feet. 12th April, 1920.”

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1514. *Maddeni Series*.—“Always on the topmost branches of high trees, seeming to prefer dead ones. Flowers scentless, very heavily flushed with rose on the outside and pure white within with a yellow stain. Young leaves thickly fringed with backward pointing ciliæ. Leaves not glaucous beneath as in the pure white form. Shingrup Chet. 7,000 feet. 15th April, 1920. (Seen again, much less flushed, in forest, above Konglangpu. Corolla an open, regular, shallow trumpet.)”

This number is not in cultivation.

1514A. *Maddeni Series*.—Found Kumla Bum.

This number is not in cultivation.

1518. *Rh. ombrochares*, Balf. f. et Ward.—“Not unlike Farrer 812, but much more abundant and in far finer characters here, in opener places of the thinner rain forest, Kumla Bum, Shingrup Chet, etc., developing into a small tree externally covered with blossom. Flowers of a cherry-crimson so vivid that the effect is blood-scarlet from a little distance and in its fall the paths are crimson. 7,500-8,500 feet. 23rd April, 1920.”

Discovered by Ward. This number is not in cultivation.

1519. *Rh. sino-grande*, Balf. f. et W. W. Sm.—“Closely akin to Farrer 959, but is an even larger tree, with not such large leaves. Flowers almost over by April 23rd. Dull, greenish-white making so little of an effect that only when one holds it in one's hand does one appreciate the size of the inflorescence. Among the uppermost rain forest, on the wooded crest, Kumla Bum, between Konglangpu and Salangpu, above the Akhyang River. 7,500-8,000 feet. 23rd April 1920. On May 4th, in much finer character at 9,000 feet in the upper forest above Nyitadi, making masses of white conspicuous three miles away. I fancy the pods are different from those of Farrer 959, but certainly both seed and flower are as remarkably copious in Farrer 1519 as in Farrer 959 they are the reverse; the leaves, however, are only less gigantic.”

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1520. *Aff. Rh. megacalyx*, Balf. f. et Ward.—“Close to *Rh. megacalyx*, but very distinct. An epiphyte, with large stiff (not floppy) flowers of pure snow-white, scarcely scented, occurring, not abundantly, on high trees along the crest between Konglangpu and Salangpu. Fruit not deflexing as in *Rh. megacalyx*. 8,000 feet. Kumla Bum. 23rd April, 1920.”

Another label on same specimen.: “Again epiphytic above Nyitadi, 8,000 feet, in tall trees. Filaments villous in lower third. Style quite glabrous, sparingly lepidote towards the base. Pedicels and calyx entirely glabrous (quite lacking the blue bloom of *Rh. megacalyx*), very bright lucent emerald green, lepidote. The calyx cup sparsely so. Calyx segments elepidote, papery, pale green, each closely doubled back longitudinally, after flowering.” See also Farrer 918.

Discovered by Ward. This number is not in cultivation. Introduced by Forrest.

1530. *Rh. phædropum*, Balf. f. et Farrer.—“ A fairly large tidy tree of 15 feet in the middle alpine woodland. Foliage very glaucous on the reverse. Flowers most beautiful, in shades of salmon-rose and light scarlet, scentless with glandular pedicels and deeper touches of colour in the folds of the lobes. (Rare in the lower alpine woods of the Chawchi Pass, but on the Mokuji very abundant, right out over the open hillsides from 6,500-11,500 feet. Colours in all shades from straw-yellow to crimson with flaked and picoteed forms, most glaucous. 16th April, 1920.) 9,000 feet. Nyitadi. 2nd May, 1920.”

Discovered by Farrer. This number is not in cultivation.

1531. *Rh. Genestierianum*, Forrest.—“ Most curious and almost ugly, hardly to be known at first glance for a Rhododendron. A small tree of the upper woodland. Flowers scentless, of a dull, deep, port-wine colour, like those of Farrer 1046 but darker and with an even heavier blue bloom externally (particularly intense on the buds) like a black Hamburg grape. 8,000 feet. Nyitadi. 2nd May, 1920.”

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1532. *Rh. habrotrichum*, Balf. f. et W. W. Sm.—“ A small tree of the lower alpine woodland. Flowers small, pale pink flushed deeper externally, scentless, and with a single deep crimson-purple blotch at the base. 8-9,000 feet. Nyitadi. 4th May, 1920. See also Farrer 887.”

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1538. *Maddeni Series*.—“ Epiphytic. Flowers pure white with a lemon stain internally. Scentless. Probably = Farrer 848, but I cannot identify it with either Farrer 1524 or 1514 (or its form 1514A), though all belong to the Maddeni series. But the determination of these species, even in the field, seems to me distractingly difficult. A second series still in flower on trees in the woodland ascending to the Shing Hong Pass on 11th June at about 9,000 feet.”

This number is not in cultivation.

1539. *Rh. spilotum*, Balf. f. et Farrer.—“ Flowers not many. bell-shaped, pink with basal blotch of crimson. Alpine woodland. A small tree always rare, occurring very rarely and in rare specimens. The upper surface of the leaves has a glistening white rime. Nyitadi. 9th May, 1920.”

Discovered by Farrer. This number is not in cultivation.

1540. *Rh. Martinianum*, Balf. f. et Forrest.—“Of straggling habit. Flowers very pretty, pale pink, deeper flushed outside, or pure white with crimson specklings inside, transpiring. In the white form the flowers appear rather smaller and the styles straighter. Little, if any, scent. Pedicels glandular. On rocks or among light bamboo brake, a thin little bush of 2-3 feet. A little suggests *Rh. moupinense*, a lovely plant. 10,500 feet. Nyitadi, Chawchi Pass. 9th May, 1920.”

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1544. *Maddeni Series*.—“Bush of 3-5 feet, inordinately floriferous, on steep banks and cliffs of the Akhyang gorge, or (very abundant near Chitupa) on open rocky ribs up at Nyitadi. Usually epiphytic on tall trees. In full bloom about 20th May (at Nyitadi), blossoms 2-4, scented, hump-backed and prognathous in profile. Pure white, rose flushed externally along the ribs and with a rich apricot stain inside bestriding the pouch formed by the hooded upper segment, and often so transpiring to transfuse the whole flower with a warm glow. The buds open nankeen yellow then expand to full whiteness, but yellow is evidently a latent character in the flower. I have seen in the distance a whole bush with flowers of sulphur colour, but these may not have been in full expansion. The seedlings have ciliate foliage, the style is villous in the lower third, and the plant is one of the most strikingly beautiful. 7,500-8,000 feet. Akhyang Valley. 27th April, and 10th May, 1920.”

This number is not in cultivation.

1547. *Rh. aiolosalpinx*, Balf. f. et Farrer.—“=Farrer 926. Flowering in the snow at 10,800 feet. This appears as a small straggly bush here not attaining such proportions (as so far seen) as it does on the Hpimaw ridge. White and creamy tones too vastly preponderate here over pink ones. On the Moku-ji Pass the plant is very fine, a 5-foot bush in wide jungles over the open alp, but here too the flowers though notably large are almost invariably cream-white. 10,500-11,000 feet. 15th May, 1920.”

Discovered by Farrer. Introduced by Farrer under No. 926. This number is not in cultivation.

1548. *Rh. cœlicum*, Balf. f. et Farrer.—“Flowering in the snow and far finer than at Hpimaw, making blots of scarlet, visible for miles. Calyx lobes and pedicels all go of the same texture and the same intense dark scarlet as the flower. (This seems occasional only.) The plant here (if indeed the same as No. 815)

is not, or very rarely, a small stout tree, but rather a thin, low little bush, flopping over precipices or making a tangle in the cane-brake. Chawchi Pass. 11,000 feet. May 15th, 1920."

Discovered by Farrer. This number is not in cultivation.

1549. *Rh. arizelum*, *Balf. f. et Forrest.*—" =Farrer 863. This too is in better form here, dappling the whole hillside with its great gnarled trees, one mass of bloom. Though *Rh. basilicum* is not here present, *Rh. arizelum* varies, as before, to lovely tones of salmon-rose, with intermediate shades, sometimes being almost as yellow in tone as a pallid *Campylocarpum* and once of a warm apricot. It is not found in the real woodland, but above where it can dominate. Chawchi Pass (rarer much on the Muku-ji). 10-11,000 feet. 15th May, 1920."

Discovered and introduced by Forrest. This number not in cultivation.

1550. *Rh. cerinum*, *Balf. f. et Forrest.*—" =Farrer 813. As before usually epiphytic, in masses of moss on old *Abies* in the high alpine zone, abundant at 10,500 feet. Chawchi Pass. 15th May, 1920."

Discovered by Forrest. Introduced by Farrer. This number is not in cultivation.

1551. *Rh. hylæum*, *Balf. f. et Farrer.*—" A tidy, round-headed tree of 20-40 feet with trunk remarkably smooth and bare and cold (see branchlets), flowers so far gone by 15th May (though snow was all about) that only after a long search were specimens obtained. They are scentless, pink and handsome, spotted rather carelessly on all the lobes. (This develops the bole of a forest tree, twisting and sprawling like limbs of an elephant.) Chawchi Pass. 15th May, 1920."

Discovered by Farrer. This number is not in cultivation.

1552A. *Rh. chawchiense*, *Balf. f. et Farrer.*—" A smaller tree than the last in full blossom amid the snows. Flowers very copious, but of a virulent blue-magenta, like *Rh. fastuosum*, *fl. pl.*, though like this some of the tones are less displeasing than others. Nos. 1549, 1551 and 1552 make up the spring-blooming *Rhododendron* forests at 10,500 feet. Farrer 1552 is particularly abundant and copious just now among the snow at 10,800 feet. (Also in miles of colour in the open on the Moku-ji Pass.) 15th May, 1920."

Discovered by Farrer. This number is not in cultivation.

1552B. *Rh. niphobolum*, *Balf. f. et Farrer*.

Discovered by Farrer. This number is not in cultivation. Farrer's description of 1552A applies to 1552B also.

1558. *Rh. repens*, *Balf. f. et Forrest*.—"This gorgeous little plant was very nearly ignored (in a very difficult place) as being only fallen from *Rh. æmulorum* close overhead on the cliff. It forms quite flat carpets, in moss, in damp places under the precipices on the bits of open slope at their feet. The solitary flowers are of a blazing light vermilion. It was their number, 4 on each mat, that made me feel the dropped blossom theory so doubtful that the plant must have the benefit of the doubt and be explored (all over finest alpine lawns). Chawchi Pass. 10,900 feet. 16th May, 1920."

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1559. *Rh. sidereum*, *Balf. f.*—"Abundant at the elevation quoted—more so and finer than at Hpimaw. A gnarled, sturdy tree of 25-30 feet with flowers typically creamy white, varying to paler and pinker tones."

Discovered by Captain Abbay in 1912 and rediscovered by Forrest, Farrer and Ward, 1919. Introduced by Farrer and Forrest. This number not in cultivation.

1560. *Rh. glischrum*, *Balf. f. et W. W. Sm.*—"This is a 20-foot tree of the light woodland (mid-alpine), occasional and sometimes frequent but never abundant. Flowers similar to those of Farrer 1532, but larger, varying in brightness and depth of colour. Certainly not the same. 10,500 feet. Chawchi Pass. 19th May, 1920."

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1566. *Rh. tapeinum*, *Balf. f. et Farrer*. "Ledges of alpine cliffs, non-calcareous. Forming low, wide masses a few inches high. Flowers often 4-lobed, honey coloured. Chawchi Pass. 10,500 feet. 19th May, 1920."

Discovered by Farrer. Introduced by Farrer. This number is not in cultivation. See also Farrer 938.

1567. *Rh. tephropeplum*, *Balf. f. et Farrer*.—"A small bush of opener places. Flowers vivid magenta-rose, very abundant on rocks and cliffs, forming wide and often procumbent masses. Very profuse with scentless flowers of bright carmine-rose, with

crimson-purple tube. 10,500 feet. Chawchi Pass, Moku-ji Pass, etc. 20th May, 1920."

Discovered by Farrer. Introduced by Forrest. This number is not in cultivation.

1590. *Rh. sino-Nuttallii*, Balf. f. et Forrest.—“Of this superb species one plant only has as yet been seen, a bush, epiphytic at the top of a tall tree in a bank of wood above the Zitta, just round the corner from Nyitadi Village. This bush bore 3 inflorescences, notable from afar, each of four blossoms; only one, of course, could be spared for a specimen. 7,000 feet. 2nd June, 1920. See notes appended. Species magnifica, *Rh. excellenti*, proxime affinis, numero staminum, rugositate foliarum, colore ramularum, inter alia, facile, et opine distinguenda.

“Leaves very rugose, as in *Rh. Nuttallii*, so stiff and hard that the spray will stand alone, supported on their horny mucros. They are numerous on the sprays and droop as markedly as in *Rh. sidereum*.

“Sprays (flowering ones) and pedicels, green not dark purple as in *Rh. excellens*, set with dark (on the sprays) scales. The pedicels are closely studded with golden scales of conspicuous effect. Branchlets very stout and stiff.

“Calyx lobed to the base (not tubular, as in *Rh. excellens*) in five oval, rounded lobes, green and crimson, edged with a white diaphanous rim of nibbled-looking membrane as in *Primula Wulfeniana*; the striæ will become marked in fruit, and though at the extreme base the calyx is minutely pubescent, the golden scales are collected all inside the upper middle of each lobe's outer face. The lobes are patent and not folded.

“Corolla evenly but sparsely scattered with transparent golden scales throughout its exterior: pure white with rare flushes of rose on ribs and lobes. A vivid point of yellow marks the puncture of each lobe (in the flower face), and the whole throat, especially its upper half, is flooded with a rich orange yellow. No scent when collected at 14.30: at 22.0 the flowers were strongly hyacinth scented. Little odour again next morning, but the blooms dropped at 12.0 after painting. The tube as in Farrer 918, and 1630, is deeply puckered, with fine, sharp pinchings-in at the base. The texture of the bloom is very stiff and solid, more so than in the two others quoted.

“Style exerted (much more definitely so, I think, than in *Rh. excellens*). glaucous green, lepidote only in the lower half, more and more densely down to the heavily scaled ovary (scales pale green).

“*Stamens* 10, not 15 as in *Rh. excellens*, not as there ‘much shorter’ than the tube but the longest of them equal to it. Very pale green-yellow, and very densely fluffy villous toward their base.

“*Anthers* dark chocolate.

“*Stigma* a rounded, cushion-shaped disk.

“*Note*.—In all these *Rhododendrons* (Farrer 918, *Rh. megacalyx*, 1520, and 1590), and therefore probably in *Rh. excellens* also, the corolla lobes are strongly and firmly revolute. A character that seems to disappear in drying. They never present the regular trumpet shape shown in Mr. Hutchinson’s drawings of *Rh. excellens* and *Rh. megacalyx*, which last has the facial angle even grotesquely negroid and prognathous. The corolla form, in fact, in all these is described, and can only be conveyed by drawings from fresh specimens. See my drawing of Farrer 918, *Rh. megacalyx*, and await those of Farrer 1520 and 1590. Size as per *Rh. excellens*, but the foliage appears larger and perhaps the flower also.

“Always so far epiphytic in the tops of tall trees in the forest at 7-8,000 feet; always were rare. Only three certain specimens marked and three problematical. 23rd July, 1920.”

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1595. *Rh. megacalyx*, Balf. f. et Ward.—“So abundant as to be described from afar in masses overhanging a sheer granite cliff, at one point of a gorge in a confluent of the Zitta. Fresh specimens confirm a remarkable feature of the flower—that is, its sharp lateral compressure, so that it is keeled above and below, and mouth and throat instead of being round, as in Farrer 1520 and 1590, are always rhomboidal-oval. 8,000 feet. Above Nyitadi. 4th June, 1920.”

Discovered by Ward. This number is not in cultivation. Introduced by Forrest.

1596. *Rh. aureum*, Franch.—“A slender and flopping bush of 4-7 feet found only with Farrer 1595 overhanging a granite cliff in a torrent gorge and with Farrer 1595 littering the rocks beneath on 4th June with its fallen flowers. These are evidently very numerous, scentless, and of bright citron yellow. Open alpine slopes and a very floriferous bush. 8,000 feet. Above Nyitadi. 4th June, 1920.”

Discovered by Delavay. Introduced by Forrest. This number is not in cultivation.

1606. *Rh. ciliicalyx*, *Franch.*—"Nothing can be said, the flowers being gone and capsules too rare to be taken. Foliage strikingly handsome, stiff and waved, very dark and glossy above, very glaucous below. A thin shrub of 3-6 feet on rocks or in tree-tops of the lower alpine woodland occasional only, this year, at least, seed very rare. Bark red, peeling away copiously from the trunk. Shing Hong Pass. 10,000 feet. 6th June, 1920."

Discovered by Delavay. Introduced by Delavay. This number is not in cultivation.

1607. *Rh. zaleucum*, *Balf. f. et W. W. Sm.*—"Not unlike *Rh. rubiginosum*, in which, however, I do not remember that the foliage was developed before the flowers nor that it was so hairy. Otherwise the identity is perfect. This plant occupies the same stations in the light alpine woodland, abounds equally, has the same copiousness of bloom and the same magenta pink colouring. No fragrance nor aromatic pine scent."

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1615. *Triflorum Series.*—"A handsome tree of 20 feet dominating the alpine scrub among rocks, etc., but not common. Foliage deciduous, very bright green, aromatic. Flowers scentless, of a terrible but superb bright magenta. Shing Hong Pass. 10,500 feet. 18th June, 1920."

This number is not in cultivation.

1626. *Rh. nmaiense*, *Balf. f. et Ward.*—"Abundant over the high alps, in dense drifts like heather, making a fine effect with its copious heads of crowded rose white or snow white blossoms, though these, individually, have a blind and blank stupidity of expression, owing to the complete inclusion of style and stamens, without a sign of them showing. The flowers are scentless, of a curious diaphanous crystalline texture, like melting clots of snow. Shing Hong Pass. 11-12,000 feet. 18th June, 1920."

Discovered by Ward. This number is not in cultivation.

1627. *Rh. charitopes*, *Balf. f. et Farrer.*—"A particularly charming plant with the last, but a loose bush of 9 inches to a foot. Very copious with 3 (very rarely 4) bloomed inflorescences. Flowers a clear apple-blossom pink, but flushed more warmly in their upper lobe and freckled with crimson, and a deep rose tube. Shing Hong Pass. 10,500-12,000 feet. 18th June, 1920."

Discovered by Farrer. This number is not in cultivation. Introduced by Forrest.

1629. *Rh. bullatum*, Franch.—“ Its identity with Farrer 842 is so obvious. The plant is here much more abundant and finer, occupying the tops of almost every tree in the alpine forest. 9-10,000 feet. Shing Hong Pass, Nyitadi, etc. 18th June, 1920.”

Discovered by Delavay. Introduced by Forrest. This number is not in cultivation.

1630. *Rh. monanthum*, Balf. f. et W. W. Sm.—“ A fragment only. No trace of bloom. Epiphytic on trees in the alpine woodland. A thin little bush of 1-2 feet, but not, I fancy, *Rh. theiochrom* at a lower elevation. The capsules appear, for one thing, to be always solitary. Shing Hong Camp. 10,000 feet. 20th June, 1920.”

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1631. *Rh. protistum*, Balf. f. et Forrest.—“ A fragment only, all trace of blossom having gone by April 23rd, when the plant was first seen. Both in habit and foliage it precisely copies Farrer 1519, but, of course, the thin, green, naked foliage has no affinity at all. It occurs at slightly lower elevations in the highest rain forest and appears to be extremely free in flower. The fattening pods are densely clothed in tawny fur. Shing Hong, etc. 8,500 feet. 18th June, 1920. Another label enclosed reads:—On this it is worth noting that F. V. Clerk, Assistant Supt. of the Htawgaw District (a creditable observer), who came up the Akhyang Valley in March 190— on the expedition which annexed it from China, speaks of a *Rhododendron* in the Valley of a ‘magnificent royal-purple blossom.’ No trace of this was seen by me in the last week of April, nor any *Rhododendron* out of bloom except Farrer 1631.”

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1643. *Rh. eucharites*, Balf. f. et Forrest.—“ A low, close bush with scarlet flowers, abounding in scrub on the alp. crags of Shing Hong. 10,000 feet. 21st June, 1920.”

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1644. *Rh. setiferum*, Balf. f. et Forrest.—“ A bush of 2-3 feet with the last flowers rosy pink. Crags of Shing Hong. 10,000 feet. 21st June, 1920.”

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1645. *Rh. spodocephalum*, *Balf. f. et Farrer*.—"A bush 2 feet or so. Flowers rosy pink. 10,000 feet. Crags of Shing Hong. 21st June, 1920."

Discovered by Farrer. Introduced by Forrest. This number is not in cultivation.

1646. *Rh. crassum*, *Franch.*—"=Farrer 1044 and is the *Hpi-maw* species reluctantly included by Hutchinson in *Rh. crassum*. Its constant form and alpine habit seems more and more strongly to plead for specific recognition. Here it is always epiphytic in a very limited range, and very local but abundant where found. Flowering season, July. Flowers large and very lovely and fragrant, slightly prognathous, pure white with a little yellow stain at the base. Anthers orange terra cotta, style apricot colour, tube often compressed laterally in the bud, then expanding. Abundant only at just about 10,000 feet in the woods of Chawchi and Shing Hong regions. 21st June, 1920."

Discovered by Delavay. Introduced by Forrest. This number is not in cultivation.

1650. *Rh. Martinianum*, *Balf. f. et Forrest*.—"Flowers all gone. Orderly thinks they were white, and will not let me identify this as the fruiting state of Farrer 1540. 10,000 feet. Crags of Shing Hong. 21st June, 1920."

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1668. *Rh. hypolepidotum*, *Balf. f. et Forrest*.—"A little thin bush of 15-24 inches, epiphytic in the upper alpine woodland. Flowers white, fairly pretty, and a sweet plant, strongly aromatic. Flowering season mid-July. 1st July, 1920."

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1669. *Rh. chætomallum*, *Balf. f. et Forrest*.—"At last I cannot help separating this from *Rh. æmulorum*. Petaloid calyces, long pedicels, few flowers, ash-coloured indumentum. All might perhaps be incidental to *Rh. æmulorum* but this species, otherwise so very close, is in full bloom by mid-July on the same alpine slopes where *Rh. æmulorum* (a little lower down) blooms in April-May and is now long over. This is a small decumbent ascendent shrub of 2 feet covering the alp, Chawchi and Moku-ji Passes, with Farrer Nos. 1671 and 1672. Flowers intense scarlet-crimson, buds black-maroon. 12,000 feet. 2nd July, 1920."

Discovered by Forrest. Introduced by Forrest. This number is not in cultivation.

1670. *Rh. charopæum*, *Balf. f. et Farrer*.—"Very near to Farrer 1046, but larger in all its parts with much bigger flowers; as invariably solitary as those of Farrer 1046 were twinned. A low bush of 6-8 inches on the opener places of the alpine slopes. It is a smaller plant than Farrer 1046 with bigger leaves and flowers. It abounds on the open arêtes, Chawchi Pass. 11,900-13,000 feet. 2nd July, 1920."

Discovered by Farrer. This number is not in cultivation.

1671. *Rh. aperantum*, *Balf. f. et Ward*.—"This may=1184. of which only a belated flower was seen. Anyhow it is a remarkably lovely plant, covering the open high alpine slopes for miles, in company with Farrer Nos. 1672, 1669, 1627, and 1626 forming an indescribable riot of colour. A small, stiff, spreading bush of 3-9 inches with very large flowers typically of a most beautiful clear rose pink, but varying to all the adjacent shades. Chawchi Pass. 12,000 feet. 2nd July, 1920."

Discovered by Ward. Introduced by Ward. This number is not in cultivation.

1672. *Rh. calozanthum*, *Balf. f. et Farrer*.—"Probably=Farrer 937. Here it is even more abundant and a smaller bush, more free flowering, covering the open slopes and precipice ledges in dense masses of 2-3 feet jungle, covered with dense masses of pale sulphur-yellow blossom in exactly the same tone as the here prevalent form of *Rh. aiolosalpinx*, a thousand feet lower. 12,000 feet. Chawchi Pass. etc. 2nd July, 1920."

Discovered by Farrer. Introduced by Farrer. This number is not in cultivation.

1683. *Rh. chætomallum*, *Balf. f. et Forrest*.—"Sent last year as *Rh. euchroum*, but plainly a different and far finer species. Larger flowers of vivid fire colour in many tones. Here it does not seem so abundant as on the Hpimaw ranges, not so well-developed a bush. I suspect the influence of this in the frequent colour variations of Farrer 1669. 11-12,000 feet. Chawchi Pass. 3rd July, 1920."

Discovered and introduced by Forrest. This number is not in cultivation.

1690. *Rh. charidotes*, *Balf. f. et Farrer*.—"This precisely echoes Farrer 1045 in every way even to habit and habitat, but seems a quite distinct species, with hairier, narrower foliage and great magenta-crimson flowers, usually solitary. This range seems in fact to repeat Farrer 1045 and 1046 in two species extraordinarily

similar yet distinct. Whereas Farrer 1046 and 1045 have twin flowers, for instance Farrer 1690 and 1670 are one-blossomed. Chawchi Pass. 12,000 feet. 3rd July, 1920."

Discovered by Farrer. This number is not in cultivation.

1702. *Rh. propinquum*, Balf. f. et Ward (in MSS.).—"Just beginning to bloom, in flattened drifts and colonies along the highest arêtes of the Chawchi Pass, 13,000 feet. Flowers rich violet-purple with red filaments. 8th July, 1920."

Discovered by Farrer and Ward, 1919. Introduced by Ward. This number is not in cultivation.

1717. *Rh. brachystylum*, Balf. f. et Ward.—"A straggly bush of 1-3 feet with flowers, though contemporaneous, with the leaves clear yellow. On open slopes, rocks and cliffs. Sometimes among scrub and bamboo. Chawchi Pass. 12-13,000 feet. 14th July, 1920."

Discovered by Ward. Introduced by Ward. This number is not in cultivation.

1726. *Farrer suggests a hybrid*, 1627 × 1670.—"A very clear and interesting hybrid, dwarf, compact and 2-3 flowered when Farrer 1670 is the dominant parent. Taller, looser and 3-4 flowered when nearer to Farrer 1627. Blossoms in all cases nicely intermediate of a rich bright rose-dubarri pink thanks to the influence of browns and bloom in Farrer 1760. The hybrid occurs near the parents on the high tops of Chawchi Pass, rarely, but in good plots and masses when seen. 13,000 feet."

Discovered by Farrer. This number is not in cultivation.

1731. *Farrer suggests a hybrid* (1671 × 1669).—"Here again the plant is nicely intermediate between Farrer 1669 and 1671. The latter showing well in leaf shape and modification of size and flower colour which here is of a light luminous vermilion. Only 2-3 plants noted on a rocky ledge descending on the Chinese side of Chawchi Pass, facing E. Farrer 1669 also gives a hybrid with *Rh. aiolosalpinx*, but the solitary plant has only two inflorescences, neither of which can be spared. It is pure *Rh. aiolosalpinx* but for the differently shaped brilliant rose trumpet and the fleshy corolloid calyx occasional in *Rh. æmulorum*. 12,800 feet. 16th July, 1920."

Discovered by Farrer. This number is not in cultivation.

1753. *Rh. Kyawi*, Lace et W. W. Sm.—"Deep wooded gorges of the Zitta torrent, in far larger and finer form than I ever saw it in the Hpimaw Pass region. Copse edges at 9,800 feet. July 29th.

Atro viridis hardly describes the upper surface of the fresh leaf; it is rather a dusty, muted-looking green. Style, filaments, pedicels, everything, all usually tone in to the same amazing dazzling soft-scarlet of the flowers. It is certainly a ne-plus-ultra species in its way, but apparently very rare in this region. 7,000 feet. 25th July, 1920." Nyitadi.

Discovered by Kyaw. This number is not in cultivation.

1775. *Rh. torquatum*, *Balf. f. et Farrer*.—"A broad, spreading bush of 2-4 feet, abundant in the upper alpine region of the Maku-ji Pass, but seen nowhere else. Flowers variable in many shades of salmon and scarlet. Leaf reverse usually white, but often of a dark dirty ash colour. Pedicels glandular, fleshy corolloid calyx process, very conspicuous in the same colour as the flowers. This is no true calyx, however, since when the corolla falls this also, after lingering a while, comes off too in separate portions, like deciduous petals. 11-12,000 feet. 31st July, 1920."

Discovered by Farrer. This number is not in cultivation.

FARRER RHODODENDRONS IN CULTIVATION UNDER NUMBERS NOT IN THE HERBARIUM OF THE EDINBURGH ROYAL BOTANIC GARDEN

810. *Rh. sp.*—"Big leaf, red shoot bracts. Winter seed April 11th, 1919." *Rh. pterospermum*, Farrer MS.

863A. *Rh. sp.*—"This appears to represent intermediate stages between the two definite species 863, *Rh. arizelum*, and 873, *Rh. basilicum*, but may prove to be, itself, a third species."

878. *Rh. sp.*—"Low, loose shrub with aromatic foliage. Flowers in lax clusters, 4-5: unknown. Good seed."

1046A. *Rh. sp.*—"This may prove specifically distinct from the real 1046, *Rh. myrtilloides*, which has mahogany-coloured flowers. Here the little thimbles are slightly larger and of magenta-pink, standing well up, each on its pedicel, above the wide, tidy cushion of glossy aromatic foliage. This plant abounds up the open alps of the Upper Chimili in great heather-like drifts, flowering in June."

1410. *Rh. sp.*—"Flowers unknown, in close heads, on very dwarf, tight, evergreen bushes of 4-6 inches, intensely green and aromatic. Very rare, indeed on one point only of the frontier arête at 13,000 feet on rocky crags and ledges."

1444. *Rh. Kyawi* (pronounced 'haw-i).—" I have no doubt in identifying this, as it comes from the *locus classicus* on the Hpyepat Pass and shows the characteristic indumentum and elongated rhachis. In stature and habit the plant is very like *Rh. facetum*. I know only three occurrences of it. All are precipitous rocky outcrops in the opener rain forest about 7,000 feet. It appears to flower in July, and to be mature by November, so I have good hopes of its resisting powers at home. The blossom is described to me, from memory, as very large and handsome, bigger than *Rh. facetum* and of a more crimson red. I only knew it in fruit. (Seedling plants of this Farrer number have given rise to discussion regarding the distinctness of *Rh. Kyawi*, *Rh. facetum*, and *Rh. prophantum*. Sir Isaac Bayley Balfour suggested the name *Rh. facetum* for the seedling plants of Farrer 1444, but some young plants under the number resemble closely young plants growing of *Rh. prophantum* raised from Forrest seed. There is little doubt that the three species are microforms of a larger species aggregate."—H. F. T.)

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