

Madras Forest College Magazine.

V9. No. 4. 1925. June

SL

JB, d, m24, n16

N25.

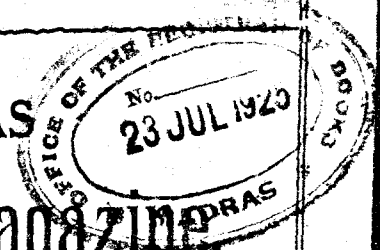
190067

Vol. IX.

VE 1925.

No. 4.

THE MADRAS
Forest College Magazine



EDITED AT COIMBATORE.

MADRAS PRESIDENCY.

Published by the Principal,
MADRAS FOREST COLLEGE.

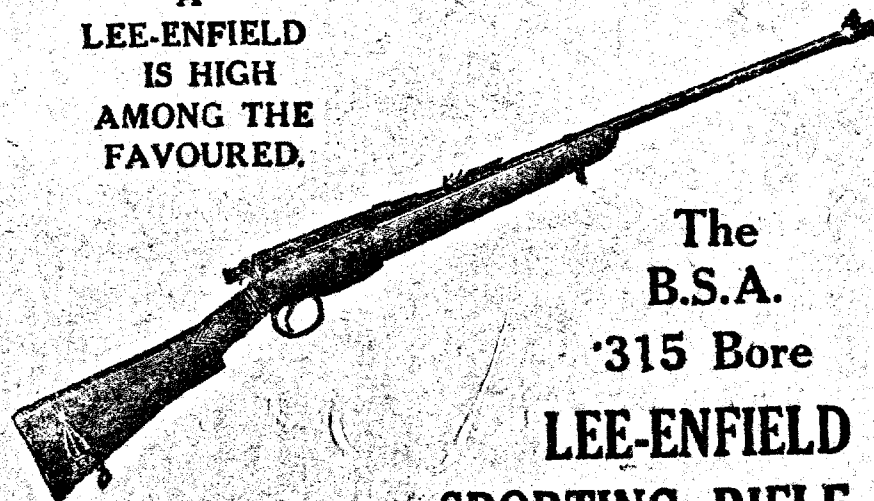
JL
J13, d, m 21, n14
N25
190067

PRINTED BY S. VINCENT AT THE ELECTRIC PRINTING WORKS,
COIMBATORE.

ALL SHIKARIS KNOW

A GOOD SPORTING RIFLE AND
A

LEE-ENFIELD
IS HIGH
AMONG THE
FAVOURED.



The
B.S.A.
'315 Bore
LEE-ENFIELD
SPORTING RIFLE

No. 4 Model.

24½ in. best nickel steel barrel, Enfield rifling, magazine, weight 7½ lbs. Fitted with English standard and 2-leaf sights to 300 yds. Front bead platinum tipped, with Cole's fore-sight protector. Walnut stock with chequered grip.

is a Reliable and Accurate
weapon for the sportsman.

Made by the famous Rifle Manufacturers,
it is in every respect, a worthy product.

Rs. 260 Nett.

Special Arms and Ammunition
Catalogue free on request.

The Premier Arms and Ammunition House

P. Orr & Sons Ltd.,
P. O. Box 317 MADRAS.

(R. 240)



THE Madras Forest College Magazine.

Vol. IX]

JUNE, 1925.

[No. 4.

CONTENTS.

- | | |
|---|---------|
| 1. "Acacia arabica",—By S. S. Harisinghani M. B. S. | 123 |
| 2. Reminiscences of Palmaner Range Forests
—By C. Balayya Nayudu, Retired Forest Ranger | 128 |
| 3. Charcoal and its Manufacture by a Paraboloidal
Kiln—By S. V. Iyer, M. F. C. 1924-26 Dn. | 136 |
| 4. A Holiday in Kargudi Camp—
By P. K. S. Narayanan Junior Dn. | 140 |
| 5. Contributions to the Gass Museum | 144 (a) |
| 6. Additions to the Madras Forest College Library | 144 (b) |
| 7. A Narrow escape—By Sh. Mohd. Eiro Khan,
Junior Dn. 1924-26 | 145 |
| 8. Cricket at Wellington—Forest Officers, V. Wellington
Gymkana | 148 |
| 9. Cuscuta. (Dodder)—By J. D. D. D.
M. F. C. 1923-25 Dn. | 151 |
| 10. Proceedings of the Forest Rangers Association
Central Provinces | 153 |
| 11. EXTRACTS. | 155 |
| 12. GAZETTE NOTIFICATIONS | |

Notice.

COMMITTEE OF MANAGEMENT.

President:—C. R. F. WILLIAMS, M. C., I. F. S.

Business Superintendent:—ROLAND MITCHELL, E. A. C.

Editor and Treasurer:—G. VISVANATHAM B. A.

Assistant Editor:—S. NARAYANASAMI.



It is notified for the information of the subscribers of the magazine that with effect from September 1925 the prize of Rs. 15/- offered to the best essay contributed to the magazine in a year by the Range officers has been increased to Rs. 30/- the additional amount of Rs. 15/- having been generously offered by M. R. Ry. C. Balayya Nayudu, Retired Ranger, Vellore.

Editor.

JL.
J B, d, m 21, 116
N 25

World's Forestry Congress in Rome.

(MAY, 1926.)

—(o)—

An International Forestry Congress will take place in Rome in May 1926, and the work of its organization is now being carried out by a Committee formed by agreement between the International Institute of Agriculture and the Italian Government.

This movement means the realisation of a wish expressed by the last GENERAL ASSEMBLY of the International Institute of Agriculture and it is the intention of the Organising Committee to give the Congress a practical purpose and to treat only questions really of international importance. Special attention will therefore be given to problems of statistics and those related to the timber trade and industry of wood and other forest-products. The Congress will also discuss all those technical, economical and legal questions, with which specialists in forestry-matters are chiefly concerned.

At the time, that the Congress takes place, an important exhibition of machines used in wood-industries and of forest-products will be organised.

Excursions to some of the most interesting forests of Italy and if possible to some other countries will be undertaken.

In addition to the delegates of the Governments, Societies, Associations, Institutions and private persons can take part in the Congress by sending to the "Forestry Congress Committee" c/o Institut International d'Agriculture, Rome, Villa Umberto I, by registered letter, the subscription-fee of 50 French francs. The members will receive free of charge all the acts of the Congress and may enjoy further privileges such as reduction of travelling expenses, by land and sea excursions, receptions, etc. A special programme of these privileges with full particulars will be sent later.

THE

Madras Forest College Magazine.

—:o:—

PUBLISHED QUARTERLY.

Vol. IX]

JUNE, 1925

[No. 4.

"*Acacia arabica.*"

(with special reference to Sind Forests.)



There will hardly be any one not familiar with Babul. It is widely distributed, especially in the drier parts of India such as Sind, Rajputana, Gujarat, the Northern Deccan, Bellary, Guntur and South Vellore. It is of common occurrence on alluvium, subject to annual inundation, and black-cotton soil. Sub-soil moisture is essential for its well-being, but where this is found in a low degree, the tree develops a xerophytic form to suit the locality. The thorns in this case are

bigger and seed contortions less. But every species thrives well where it obtains "combination of Factors" that helps its growth and development. Such are the conditions in Sind which is its chief habitat. Prof. Stebbing states, "I can conceive no limit to the growth of Babul in Sind, except as regards the area that can be spared for that purpose, and its limits are far from being approached. The soil, climate and water supply are particularly well adapted to it. Wherever the seed is deposited and a fair amount of water given, the tree thrives of itself".

This monarch of the Sind Forests where it rules with all pomp and dignity receives the utmost attention at the hands of its defender the Forest Department which is so proud of the magnificent forests it forms in the middle and lower Sind—attempts have been made to propagate the species in upper Sind, but, due to the vagaries of the River Indus, which is the main source of supply of water and the occurrence of ground forests, no satisfactory results have as yet been arrived at.

From the foregoing remarks one, blessed with species of greater importance, would wonder why Babul is being cared for like a 'peach wrapped up in wadding'. The first and the foremost factor may be said to be the local conditions that favoured its growth. The second one takes us as far back as 1869 when Mr. Brandis made the Sind tour at the time when the Indus valley railway project was taken up. About 600,000 sleepers and enormous quantities of fuel for locomotives were needed. He recommended the Babul forests of Southern Sind as the

first source of supply of sleepers. Consequently measures had to be taken for the nursing, development and prevention of injuries which impeded its well-being. Apart from all this the tree supplies for domestic and agricultural needs of to-day had to be reckoned. Its use is not only a local one, but large quantities of Babul fuel and charcoal are being annually trained to Afghanistan.

The tree, as already remarked, is very common in dry climates, with a rainfall ranging from 3"—50". It thrives best on moderately deep sandy loam fringing the banks of rivers. It tends to avoid water logged area and frost holes.

Babul is one of the typically gregarious trees found often in even aged patches. It is a very pronounced light demander and timely thinings judiciously carried out result in a high increment. Such thinings should be frequent. They must realize such trees as have come to maturity and in many instances lying out in the forest or up-rooted or trees which would fail to respond to thinings.

Natural regeneration is satisfactory where the requisite degree of light and moisture is present. The pods are greedily eaten by cattle and goats. The indigestible seed ejected by the animals has an excellent degree of germinative power and is furthermore insect proof (due to certain processes of fermentation to which the seed is subjected in the stomach). Babul Coupes in Sind were fenced after felling but as no coppice growth was induced (rotation being 30 years) this practice is no longer adhered to. Cattle have consequently become an important

factor for the disposal of seed and the consequent regeneration therefrom. Babul is known to coppice well (but I have never seen it coppice in Sind). In youth it is frost tender. In Sind *Tamarix galica* (lai) is used as a nurse in young stages. Young seedlings are damaged by deer and porcupine.

The most simple and least expensive method of artificial regeneration—broad-casting—has given the best results. In swampy areas mound or ridge sowings are resorted to, whereas in grassy areas drill sowings or dibblings give satisfactory results. Planting is scarcely undertaken. In Sind broadcast sowings are done when the river water is on the recede. In areas in the far interior, further away from the river it is grown with field crops either broad casted or sown in separate strips alternating with field crops. There are other areas where attempts are being made to grow Babul by irrigation. Sluices or "Karias," as they are called in Sind, are cut through the P. W. D. canals and water thus admitted to these areas.

The wood is pinkish brown, mottled with streaks of darker brown. It is heavy and very hard, weight per c. ft is 54 lbs and P (coefficient of transverse strain) 880.

In 1869, as already stated, Babul forests were the source of supply of sleepers for the Indus valley railway project. It is an excellent fuel (calorific power B. T. U. 12,256) and had for a time a great demand from the railway companies for engine fuel. Later on however babul fuel was replaced by coal for it was believed to damage the

engine boilers. Being both heavy and hard it produces the best quality of charcoal. It supplies small timber for verandah posts, beams, scantlings, door and window frames etc. It is too heavy for furniture but is extensively used for charpoi or bedstead legs, turnery, carving and engraving. In sind carved dies are prepared out of it for stamping coloured patterns on bedsheets, table-cloths, door and window slides etc. Apart from all this it supplies all the wants of a cartman. It is interesting to see how illicit cuttings for a shaft or an axle are resorted to, in Sind, in order to escape the high price which a contractor would demand for the same. All agricultural implements there, are made of Babul. Every part of the Persian wheel, which is to be met within every part of Sind is made of Babul. It is one of the principal woods used for oil-presses, sugar mills and rice-pounders. The bark is in great demand in the leather tanning factories at Cawnpore. The pod is an excellent dye. Leaves afford an excellent fodder for goat, camel and cattle. The latter unlike the former do no damage to the young Babul seedlings. Branches are used for basket making; apart from this they are cut in lengths of about 6"—9" tied up in bundles of 100 or so and sold as tooth brushes (extensively used wherever Babul grows). It exudes a gum, which in addition to its daily use for sizing and pasting, is valued both by the confectioner and the Indian Medical man. The last, but not the least, is that even its large white thorns may sometimes fulfil the need of a pin. Indeed many and varied are its uses and high its utility!

A Ranger deputed to the Central Provinces for the training of Lac production has returned back very recently. Babul being a good

host for the Lac insect, hopes are entertained for its further use. The much talked about Sukkur Barrage Project has been taken up and one can very well imagine the vast demand for wood it would entail upon the Sind forests. Babul, every part of which is useful and which is being blessed for the cool shade it affords a weary traveller in the sandy tracts of Sind, is hoped will command a still better place among the more useful and important of our Indian timber trees.

S. S. HARISINGHANI,
M. F. C.—1923—25 Dn.

My Reminiscences of Palmaner Range Forests.

Palmaner Taluk is situated to the west of the old North-Arcot and the present Chittoor Districts, and forms part of the Mysore plateau. It is nearly 2000 feet above mean sea level. It is full of hills, some of which attain a height of about 3000 feet above the sea. The area of the taluk is 439 sq. miles and the average annual rainfall about 36 inches. Owing to its elevation, it has a pleasant and temperate climate, which in the cold months is even chill and sharp. Officials of the Forest Service will therefore find it quite agreeable to go about even in the hottest part of the day without any sign of fatigue or exhaustion.

In former years this taluk was considered malarial, and cases of fevers were quite common. But in recent years, all this has changed,

owing it is said, to the absence of the dampness of the soil, which was a common feature in times gone by, caused apparently by heavier rainfall. There are, however, even now, some portions where malaria is still prevalent, for instance in and about Venkatagirikota and Nayakaneri.

This taluk contains a great extent of forest lands, but trees of appreciable growth and size will be found mostly in the Eastern portions, where the plateau descends into the plains. Large numbers of tamarind trees can be found all over the taluk, but the tree which is seen in abundance is the kaunga (*Pongamia glabra*) which grows luxuriantly and from whose seeds, oil is extracted, which is useful for domestic purposes and medicinally as well. Not only this, the leaves and flowers of the tree are extensively used for agricultural purposes, as they constitute an excellent form of green manure.

The Palmaner plateau is reached from the plains by one of three passes. The first of these is on the roads, between Chittoor and Palmaner and is called the mogili Pass. Here the rise from the plains to the table land is gradual and this road forms part of the South Indian Motor Union road from Madras to Bangalore, so much frequented by motorists. The other two passes are the Sainogunta Pass and the Nayakaneri Pass from the Gudiyatam side. Here we have to rise somewhat abruptly from the plains to a considerable height and vehicular traffic is therefore a matter of some difficulty, though pedestrians and equestrians will not find it quite so hard to journey along up and down. To compensate for this difficulty of locomotion, there is the

splendid jungle scenery, which cannot fail to impress travellers by its magnificence.

One note-worthy feature of this taluk is that all the roads run, up and down hills, sometimes over the steep side of the hills, winding their course in a rather attractive fashion and enabling travellers to see many miles ahead. Here and there, the eye is relieved of its monotony by the presence of green plots of land adjoining groups of little villages.

By the side of Sainigunta Pass, the Forest Department, has constructed a bungalow at Mordona. The bungalow is on the summit of a hillock and the view from there of the surrounding country is really superb, surrounded as the place is, by deep ravines, high peaks with rocky cliffs with green verdure all round. The place is absolutely still at all times and the stillness is only disturbed occasionally by the singing of the birds or the barking of deer and the belling of sambre which are plentiful there.

It was in the year 1917 early in January that I was placed in charge of the forests of this taluk. The first thing that struck me after I took charge was the prospects of having a pure forest of Sandal wood in future years in certain localities. The elevation and the fertility of the soil are well suited for the cultivation of this species and examples of luxuriant growth were not wanting in many parts of the taluk. There was already a very good and thick growth of this species in Nagamangalan tope, Nudamvaripulli tope, a portion of Nellipatla

reserve, Kaigallen Ern in Thotakanama reserve, Baireddipala tope, and Venkatagiri Kota tope. Baireddipalle and Venkatagiri Kota topes contained trees of 21" and 28" girth. As my stay in the Range was only for a few months I had not time to propagate this species. After I left the Range, I had information that an enumeration of all the trees and plants available in the Range was made and a record of them was kept in the office. But beyond this, I am not aware if any further action was taken in this matter. The conditions to propagate this species now will be the same as they were in my time and I cannot resist the temptation to emphasise my opinion that it must be quite easy to extend the growth of this species of trees to the other parts of the taluk by sowing the seeds broadcast in the existing other kinds of shrubby growth. This process will surely increase the revenue of the Government to an enormous extent in the future.

I shall next give my experiences of two matters in which there has been a change of method of working in the Department. I shall also say which of the two methods, the new or the old is the better one, assigning my reasons for the same.

First as regards firetracing, the old system consisted of clearing the boundary lines of all grass and inflammable matter all round the areas to a breadth of 15, 50 or 100 ft. according to local conditions and also clearing internal lines to prevent fire from spreading. Then the whole breadth of the line was burnt. It was afterwards protected by

vigilant watch and left to the good will of the graziers. The present system of "early burning" consists in burning the whole area of the reserves completely when the grass is just beginning to dry. The following disadvantages will be observed in the present system.

1. The grass will not burn when it is green and the portions left unburnt have to be gone over again, after the grass becomes fit for burning. This will be an additional labour.
2. It destroys all seedlings over the burnt area. The seedlings of each year are burnt in the same year. The seeds on the ground are baked, rendering them unfit for germination.
3. By burning every year, the surface soil is hardened into a crust and the germination of seeds is impeded.
4. By this method, grass all over the Division is burnt and till it sprouts, the cattle of the surrounding villages go without their usual feeding. They are kept starving or half starving for some months.

These disadvantages did not obtain in the old system or at least they were not existing to such an extent as in the present. The following may be taken as pertaining to the old system.

1. Only the grass on the lines were cut and when it was dry it was burnt. If anything remained unburnt it was cut and thrown as—under. The labour here was not much.

2. Sometimes the whole area was not burnt by incendiarism and I have known vast areas were protected year after year. Or if an area was burnt in one year, the same area was not burnt the next year. Thus some portions escaped fire year after year and in those areas regeneration is rampant. Even if such areas are burnt, the growth comes up more vigorously from the well fixed tap root after burning and thrives well.

3. The soil was as porous as ever and afforded facilities for seedlings to come up.

4. Grass was available for cattle, though dry. Even this dry grass was welcome, at a time when they could find no fodder elsewhere.

Without regeneration, all forests must deteriorate in the long run. So in the old system of firetracing there were chances of forests escaping fire in successive years and giving good results in regeneration, whereas in the present system of 'early burning' such results are unlikely. It will not therefore be difficult to see that the old method was far better than the new one.

Secondly as regards coupe fellings also I propose to compare the old method of "coppice with standards" with the new one of "clean fellings" and to show to the reader with good reasons, that the old method was even here better than the new. Formerly under the system of "Coppice with standards", they were leaving 25 standards per acre and even more in some cases. These standards were covering the ground with their shade and protecting the soil and the young coppice

shoots from the severe heat of the sun and at the same time helping regeneration by shedding their seeds. But now "clean fellings" have taken the place of the former, under which system the whole area is clean felled, leaving no tree standing. Under the present system, the whole felled area is left exposed to the head of the tropical sun, which kills the growth of trees more or less. In addition, there is no means of getting regeneration, unless seeds are brought from elsewhere and sown. The working of the new method will soon bring the forest areas into devastation. Thus it is obvious that in both these methods, the balance of advantage is decidedly in favour of the old method, making it necessary for us to pause and consider, whether we ought not to revert without much loss of time to the older and more advantageous method, abandoning the new, which has only its novelty to commend it to us and nothing more.

I am even for improving the old method of "coppice with standards". Instead of leaving only a fixed number of standards such as 25 or 30 trees per acre, which do not give sufficient protection, I would advocate the adoption of the following method. In the area, where it was intended to be worked for fuel, trees, which are over mature, rotten stunted, stagheaded and of inferior species may be marked be felled and the rest left in the area in tact. Of course all shrubs and the thorny growth are to be felled and removed. This system will leave a larger number of trees than that mentioned above and the canopy will be preserved so as to minimise the causes of damage to the soil and

growth. The percentage of regeneration will, no doubt, increase and at the same time we will have indigenous species suited to the soil. No forest will continue to thrive without regeneration and it must be every Forest Officer's aim to see that regeneration is obtained at all times and under all circumstances. This I think, is the system best suited for most of the Central Districts of the Presidency, west coast excepted, the conditions of which, I am not aware of.

It will not be out of place here to mention something about rotation. It was at first fixed at 20 years, then it was raised to 25 and 30 years and now the period has reached 40 years. The longer the period of rotation the better it is for the growth of the trees. It not only allows the crop to mature and yield a good out-turn, but also minimises the after effects of cutting back often, such as shaking of the roots while felling and cattle grazing, when in young stage of growth. The deterioration of the forests, which will be the ultimate result of these frequent workings during several rotations, can be put off to a longer period, if the rotation period is prolonged.

The above are my experiences in the firetracing and coupe fellings and I invite the views of readers on these matters so that the subjects may be fully threshed out.

Vellore, }
9-5-25. }

C. BALAYYA NAYUDU,
Retired Forest Ranger.

Charcoal and its Manufacture by a Paraboloidal Kiln.

The dearth of coal and a good supply of wood of various species in India make it necessary to depend upon the latter for heating and domestic purposes in general. Firewood is bulky, heavy and cannot be transported cheaply to long distances; it has to be split and made ready before use; it burns with a smoky flame giving off various liquid products which interfere with the colour, etc. of the substance heated; hence the necessity for using charcoal which is the residuum left behind when wood is burnt in a closed space out of contact with air.

Charcoal has none of the aforesaid disadvantages of wood, and has in addition, characteristic properties to establish its superiority over the former; it can easily be lighted, while its intense, steady and prolonged heat, yielding almost twice the calorific power of the same weight of wood, makes it very popular with metal workers and other artisans.

The principal methods of preparing charcoal are threefold; in retorts, in pits, and in kilns. The first method consists in heating wood, closely packed in airtight retorts of iron or masonry, collecting the by-products like tar, alcohol, acetic acid etc., this method is not popular in India, and is generally carried on more for the sake of the by-products of the destructive distillation. The pit method of making charcoal is considered to be very wasteful, and is adopted wherever wood is abundant and cheap; the charcoal obtained by this method is likely to be overburnt, and of inferior quality. The third is the most suitable method especially for forest purposes.

Charcoal kilns may either be temporary or permanent, and may also differ in shape, size, the method of stacking wood inside, the manner of working etc. The main principles underlying the working of these kilns are more or less the same and are as follows:—

The wood burnt in a kiln at one time should be of the same species to ensure even carbonisation. Again very thick billets should be split up to a convenient size, and arranged compactly where the heat is going to be the most intense; the billets must also be dressed straight, if necessary, and cut to the same length as a tight packing, and the consequent exclusion of air is highly desirable. Unsound and hollow billets should not be used at all.

On 22-4-25 by the side of the Trestle bridge near our camp at Bandyshola we selected a level bit of ground in sandy loam and built a paraboloidal overground charcoal kiln. This type of kiln is quite suitable for forest purposes, since it could be erected with ease wherever water is available; the required slow, smothered, combustion of wood could be regulated without much difficulty by making or closing holes at the surface of the Kiln as the case may be.

Having decided that our Kiln should be 8' 6" in diameter at the base, we marked out on the ground, the periphery of the Kiln and dug a narrow ditch along it to divert rain water. The site was next made uniform and even, with the centre slightly raised so as to drain off the liquid products of combustion.

A triangular flue was next constructed in the centre with three uprights each 5' long, driven into the ground 1' apart and forming an equilateral triangle; these uprights were then bound round with twisted straw to form a hollow chimney. A piece of tin plate was placed at the bottom of the flue on the ground to keep off the moisture damping the chips in the flue, the hollow chimney was next filled in with dry combustible materials like chips of wood, dry twigs, straw etc., the smallest pieces being at the bottom.

A straight pole 5' long was laid radially so that it may leave a passage for firing the Kiln from below when it is withdrawn.

Billets 18" long of *Eucalyptus globulus* from a measured stack close by, were removed and packed in the Kiln compactly beginning from the centre; thin split billets were placed close to the chimney to let the wood catch fire easily and the thickest about half way along the radius. The first two layers were arranged vertically with the thick ends of billets downwards so as to maintain the proper paraboloidal shape. The first tier of billets were arranged in the form of an X over the long straight pole placed radially from the centre so that the billets may not sink and block the passage when the pole is removed. Over these two vertical layers a horizontal layer of billets was arranged.

The whole surface, except the top of the flue and the bottom portion to a height of 6 inches was covered with a 2 inches thick layer of ferns, green branches and weeds, starting from the top, and was plastered over with soft, well puddled earth, commencing from below.

The long straight pole was next pulled out and through this firing passage a bundle of burning straw was pushed in to set fire to the inflammable material in the chimney. When the fire got in, and smoke was issuing forth briskly the lighting passage and the top of the chimney were filled with some more billets and the openings plastered over with mud.

The kiln was watched by day and night for closing up cracks on the surface as soon as they appeared opening or closing holes as required for regulating the burning, putting upright forked poles with horizontal ones resting on them to prevent the covering sliding off the steep sides of the kiln, etc. The blue flame issuing out of a hole is always a sure indication of the complete carbonisation of the wood nearby and the hole has to be closed immediately.

The kiln was opened on the evening of 7-5-1925. A fairly big opening was made on the surface at the bottom, all the charcoal and glowing embers falling through were raked out carefully, the glowing pieces of charcoal slightly sprinkled with water, and the whole stuff spread out on the adjoining turf to be cooled, while the unburned pieces were sorted out and kept separate. In this way all the charcoal available, was collected and was found to be of very fine quality with the proper metallic lustre conchoidal fracture and the clear ringing sound when struck.

After cooling, the charcoal was put into bags and weighed and found to be 850 lbs net. The following figures show the percentage of success obtained from the paraboloidal kiln.

Quantity of fuel put in	= 125 c. ft. stacked
Weight of do @ 46 lbs per cft. and taking .6 as the reducing factor.	$= 125 \times 0.6 \times 46 \text{ lbs.}$ $= 3450 \text{ lbs.}$
Weight of unburnt wood	= 54 lbs.
Net weight of fuel used up	= 3400 lbs app.
Weight of charcoal got	= 850 lbs.
$\therefore$ Percentage of charcoal	$= \frac{850}{3400} \times 100 = 25\%$

A very good burn for a paraboloidal kiln both as regards outturn and quality of charcoal, for the permanent Octagonal kiln at Newman only gave a yield of 22% of charcoal and 5% of the wood put into the kiln remained unburnt; while in ours only about 1% remained unburnt.

S. V. IYER,

Student 1924-26 Divn. M. F. C.

————— (:) —————

A Holiday in kargudi camp.

It was a Sunday morning. Though it was a holiday I could hardly feel it as such. It had no attractions, at least in my

case, as I had a lot of writing work to do. When I began my work in right earnest I heard a rally call. Thinking it to be the announcement of a notice I was about to go to the notice board when I was informed that the whistle was to announce an elephant fall on the bank of the Moyar river near Teppakadu, about 5 miles from our camp. I was joyous as I was to have a holiday in the real sense of the word. The whole camp was astir on hearing the news. Every body down to servants and sweepers did not want to miss the amusement of bringing a wild Jumboo from its home in the forest. Most of us will not have another opportunity of this kind. Students left their journals unfinished and servants their cooking. Everyone started at once and hurried to the spot to see the operations from the very beginning to the very end. Last year the news of a fall was communicated to the camp late and the students who went returned disappointed as it was all over when they reached. I was one of the first to start. I biked the distance imagining all sorts of things that would take place and reached the spot before the commencement of the operations.

There was a pit 10' deep 12' x 12' at the top and 9' x 9' at the bottom and in it there were a mother Elephant and her calf; the mother charging wildly the hard sides of the pit little knowing that she could not escape so easily and the calf nestling under her mother's stomach.

She was a member of one of those migratory herds which go from Mysore side to the British territory for fodder in the hot

season. These herds cannot cross anywhere below the Teppakadu area as the Mysore frontier ends abruptly in the extremely steep sides of the Moyar gorge or ditch. The only way and the shortest one too for crossing is near Teppakadu, where pits are dug chequer-wise on both sides of the Moyar river all along the banks to receive those who want to taste the hospitality of the forest department. The positions of these pits have been carefully concealed by covering them with bamboo splits placed crosswise with a covering of grass and leaves. Even men cannot distinguish the situations of these pits. The poor calf came frisking and playing and fell into the pit and called his mother for help. She came and instead of rescuing it also fell into the pit. As the sides of the pits were sloping she had a gentle fall and so thinking that she can get out as easily as she came down was making frantic attempts to get out. She could not. Enraged at her helplessness she would not allow anybody to approach the mouth of the pit.

Meanwhile the mahouts, kavadies, and a number of other persons came with many decoy elephants to help her to get out of the pit. But before doing so they wanted to get her under proper control lest she in her rage should charge her helpers. They tried to noose her both by the neck and one of the hind legs but she would not allow it. Then a struggle began. The noose which was made of a pretty thick hemp rope about 6" in girth was thrown over her head many times, but she managed to shake it off. The men were masters in the art of elephant

capturing, and after a good many trials managed to put the noose round her neck and tightly secure it. Similarly another noose was put round her right hind-leg. Then billets and leaves were thrown in and the pit was filled up gradually, but she in her anxiety to get out left her young calf in the pit itself and scrambled out before the pit was full. By this time she was very tired with too much fretting and charging. Thinking that she was out of danger she rested for a while and then wanted to run away. But who will leave her? There was the majestic and powerful Jupiter and the old Jumperi holding the hind leg and the neck ropes respectively. Besides these two there were many other elephants helping. She thought that they were all her friends but when they prevented her from running away she charged some of them, but finding the odds against her great and her condition helpless kept quiet.

All this time the young calf was crying in the pit for her mother to help but she herself was unable to move a foot anywhere. The little fellow gathered all his resources and put up a brave fight and tried his level best to escape noosing but when his mother herself had to yield he could not do otherwise. When he was brought out of the pit he saw his mother a captive and he himself cannot move. Instead of keeping quiet he went on charging anybody who happened to go near him perhaps to get himself free and then to rescue his mother. In one of his attempts he so frightened a cooly that he fell down and broke his arm. All these made him only to be more closely watched and secured.

When the neckropes of the two new captures were securely tied round the bodies of two decoys they were marched to their new homes i. e. the kraals at Teppakadu. The young fellow gave no further trouble but his mother gave a lot. She refused to go along the path but would try to go into the forest. The powerful Jupiter was always near her and brought home to her mind that she was a captive and as such could not have her own way. Unnecessarily she worried herself that twice she fell down out of sheer exhaustion. Water had to be poured over her head to bring her round. Even then she would not rise till she was raised by Jupiter; slowly and unwillingly she reached her new home which she would not enter. It was a prison and who will enter a prison voluntarily? But Jupiter forced her into it. Then the nooses were removed and her child was allowed to join her.

When the ropes were removed she thought she was free. She wanted to take vengeance on the men who so deceitfully caught and made her a prisoner and to make good her escape. She charged with all her might the sides of the Kraal and kicked the pillars and the wooden frames. She trampled and wanted to break the wooden flooring. She could not and only injured herself. The Kraal was a big structure the sides were made of thick scantlings passed or fixed to wooden pillars of big size. When she found out that she was helpless she stood still with impotent rage.

The men wanted to be kind to her. They christened her "Parvathi" and her son "Ganapathi". It is said that even "a soft word turneth away wrath", so they wanted to please her. One man offered sugarcane and another jaggery. But she was determined not to take anything from the hands of those whom she considered as her enemies and who caught her by deceit and brought her from her home by mere force. She tore the sugarcane and jaggery from their hands and trampled them under her feet; finding her unruly the men threw in some food and drink and went away thinking that time will make her realise her position.

We all returned to our camp fully satisfied with the enjoyment of the holiday; though none took any food that day none felt the want of it. The whole camp talked about the capture for a number of days.

But "Parvathi" was a noble animal. She did not like to lead the life of a captive. When she came to know that escape was impossible she went on hunger strike and passed away out of human control.

Stone walls do not a prison make
Nor iron bars a cage".

P. K. S. NARAYANAN,
Junior Division.

Contributions to the Gass Museum.

No.	Contribution.	Contributor.
1.	Two young Cobras	{ Mr. S. S. Harisingani M. F. C. 1923-25 Division.
2.	Pressed specimens of Pterocarpus Santalinus	{ M. R. Ry. B. H. Ananda Row M. R. Hons.
3.	Bole of Eucalyptus globulus with a huge canker	{ Mr. Divekar, Student M. F. C. 1924-26 Division.
4.	One album of photo- graphs.	{ J. A. Master Esq., I.F.S.

144 (b)

Additions to the Madras Forest College Library.*During the quarter ending 30—6—'25.*

1. Working plan for Pyinmana Forest Division for the period 1923-24 to 1929-30.
2. Priced vocabulary of Medical Stores.
3. Military Engineering; Bridging and Roads.—1922.
4. Bulletin of the Imperial Institute. Vol. XXII Nos. 1 to 4.
5. Report on public instruction in the Madras Presidency for the year 1923-24. Volumes I and II.
6. Madras Forest Bulletin No. VII. Sylvicultural Research in Madras Presidency. 1923-24.—By J. M. Sweet Esq. I. F. S.
7. Burma Forest Bulletin No. 2. 1925.
8. Calender of the Forest Research Institute and College, Dehra Dun 1922.
9. Tests of Indian Timbers in Structural sizes. Forest Research Institute, Dehra Dun. (Economic branch)—Project No. 2.
10. Yale University: School of Forestry Bulletin No. II.
11. Flora of the Presidency of the Madras. Part VI—By J. S. Gamble.
12. The Mechanical properties of Wood—By, Samuel J. Record M. A.
13. Forest Research in India 1923-24.
14. Administration report of the Forest Department of the Madras Presidency for the year ending 31st March 1924.
15. Journal of the Bombay Natural History Society Vol. XXIX.

A Narrow Escape.

This very exciting incident I am going to relate took place in Bori Reserve at about fourteen miles from Pachmarhi Hills, while I was undergoing practical training in Hoshangabad Division. More than a year has elapsed, but the incident is as vivid to me as ever; and the vividness shall be there, whether I be in C. P. forests or at home, where there is something to bring back to my mind a collection of memories connected with the scene.

It was the second week of February 1924, if I remember well, and the monotonous work of measuring logs on the very spot before their removal from the coupe by the contractor, was about to end. About 1775 trees had been measured up till then, and a few trees felled in a remote corner of the coupe were still to be recorded. To give a finishing touch to my work, as it were, I hurried to the coupe one morning, accompanied by a single cooly, Ganjan by name. I had with me a field-book, a 50 feet tape, a crayon and that was all.

Formerly I never used to come back to my camp before 4 p.m.; but on that day, to my great relief, the work was finished by 12 noon and I was hastening back to camp, Ganjan walking ahead to show me the way. We were somewhere in the heart of the forest, when Ganjan began to make a fuss as if to scare away some animal. At first I thought he was fighting the black-faced monkeys, whom I, too, used to tease on my way back to camp, and he greatly amused by their grimaces, jabberrings and cowardly habits. But soon he turned back

with a pale face, and, Gond as he was, addressed me in bad Hindi in a confused tone: "Sahib, here are two baby-panthers and they will surely attack us". When I saw a Gond who was more accustomed to things, showing signs of fear, my heart began to beat hard. Anyhow I kept up my spirits and moved forward a step or two. Two baby-panthers, I saw, standing inside a thick bamboo clump. At first the idea of catching them alive flashed across my mind; but at another moment, finding them in an offensive attitude, I made up my mind to put an end to their lives. I could have shown them a clean pair of heels if I liked, but without caring a fig for their mother, (it was of course unwise on my part), I was bent upon knocking out their brains. I told Ganjan to hand over his axe to me; but to my great disappointment, he had failed to bring it on that day. I rebuked him and told him to fetch me a bamboo-stick. As he had nothing to cut it with, he picked me a rotten bamboo, which was sure to snap into two at the very first blow.

Meanwhile I had been watching the two cubs which were still in their former position, and wagging their tails to and fro. No sooner did I raise the stick with a view to drive them out of the clump, than they came out with the speed of a lightning flash and stood before me still swaying their tails from one side to the other. One of them, most probably the male one, was a bit fatter and bigger in size and they appeared hardly older than five months. I never dared hit them with the stick as it was already crumbling within my grip. I summoned courage, lifted a stone from the ground and threw it at them. Though

it struck neither of them, it had the desired effect of frightening them and both took to their heels and I, together with Ganjan who had been quietly watching them, chased them from clump to clump. We could not keep an eye over both of them, as they ran in quite different directions for the safety of their lives. The younger of the two, disappeared, but the male one was closely followed by us. Once we lost sight of him but after searching carefully, he was found crouching behind a boulder. I beckoned to Ganjan to get back, pick up some stones and be ready. As for myself, I quietly retraced my steps and getting behind the boulder, hurled a stone at him, which lodged well on his belly. This proved too much for him. There he was lying with his legs turned upwards, groaning and trembling. I gave another blow on his head with the result that blood began to trickle through his nostrils and this trickling soon changed into profuse bleeding. He kept groaning for a minute or two, and at last with the profuse loss of blood, his life ebbed away.

As the dead body was lying in front of me I realized how recklessly I had acted. I leave it to the imagination of the readers, what would have happened, had its mother come to know of her baby's murder.

I told the cooly to wrap the dead body up in Teak leaves and carry it home. We both ran away from the spot at the top of our speed lest we should be chased by its mother. We safely reached a Bandy-

stand where I sat under a tree and closely examined my game, putting on the airs of a pukka hunter.

The panther cub's skin adorns the wall of my house as a shikar trophy and ever reminds me of the narrow escape I had from the jaws of death.

SH. MOHD FIROZ KHAN,
Junior Division, 1924-26.

Cricket at Wellington—Forest Officers v. Wellington Gymkhana.

The officers of the Forest Department played the Wellington Gymkhana at cricket on the 10th May with an innings a side. Wellington winning the toss elected to bat first and sent in Stokes and McQuade who held the ground for some time till the first wicket fell for 50. Wimbush's bowling accounted for six wickets. McQuade topped the score with 57 runs when he was caught. The second wicket fell for 87 and the sixth at 112 when a spurt was made bringing the seventh to 150.

The Forest Officers started with Richmond and Phillips in partnership. Phillips was dispatched when the joint contribution was ten and Wimbush filled his place till he was bowled by Cole, the second wicket falling for 37 runs. Richmond played with remarkable steadiness, although he was missed badly twice during the early stages. He retired after the fifth wicket had fallen for 104, when he had added 89 runs. Wilson, who was missed badly, in the slips off Macartney's bowling when he had just scored three runs, had a long innings also, registering 41 off his own bat.

The home team, skippered by Lieut. Macartney, missed the two chances aforesaid, otherwise the match would have resulted more favourably for them.

WELLINGTON GYMKHANA.

Lieut Stokes, b Wimbush	...	...	...	25
Rfm, McQuade, c and b Wimbush	...	...	...	57
Lieut. Cole, c Divakar, b Wimbush	...	...	...	10
Capt. Godson, b Wimbush	...	...	...	1
Capt. Britorious, b Wimbush	...	...	...	9
Major. Foley, b Wimbush	...	...	...	0
Mr. F. R. Jenkins, not out	...	...	...	29
Lieut. Morland c and b Wimbush.	...	...	...	19
Lieut. Mole, b Divakar	...	...	...	0
Lieut. Mould, b Divakar	...	...	...	0
Lieut. Macartney, did not bat				
		Extras	...	4
		Total	...	154

BOWLING ANALYSIS

	O.	M.	R.	W.
Wimbush	... 13	0	74	7
Khan Mahomed	... 4	0	35	0
Richmond	... 6	0	30	0
Divekar	... 2	0	11	2

FOREST OFFICERS.

Richmond, retired	... 89
Phillips, c Stokes, b McQuade	... 5
Wimbush b Cole	... 15
Dyson. c McQuade b Macartney	... 1
Williams, b Macartney	... 25
Whitehead, St Godson, b Macartney	... 1
Khan Mahomed, b Macartney	... 18
Wilson, not out	... 41
Hicks, St. Godson, b Britorious	... 0
Mitchell, not out	... 4
Divekar did not bat	... 0
Extras	... 6
Total	... 205

BOWLING ANALYSIS

	O.	M.	R.	W.
Cole	... 15	2	58	1
McQuade	... 10	1	41	1
Macartney	... 12	0	67	4
Britorious	... 3	0	30	1
Jenkins	... 1	0	3	0

(Extract from "The Madras Mail.")

Cuscuta. (Dodder).

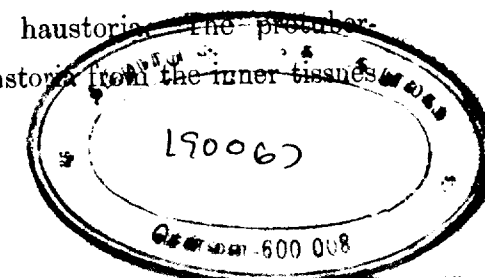
The above named plant is neither a tree nor a shrub but a thread like herbaceous and twining climber. Its mode of growth and manner of obtaining its food is so peculiar that it can be called a *curio*.

It belongs to the order 'convolvulaceæ' and is a parasite. The whole plant is yellow in colour, with flowers in bunches and with a few and very minute leaves. Both its leaves and branches possess very little green substance (chlorophyll). It is especially found in summer attached to suitable plant in quite open and dry places.

The seeds of other parasites for instance those of Lorantheæ germinate and live on their host-plants and those of Santalaceæ do so in the ground and develop both root and shoot, the former below ground in search of roots of any host and the latter above ground towards light. But cuscuta unlike Lorantheæ germinates on the ground and unlike Santalaceæ its plumule alone soon develops into a long thin filament, the fore-end of which moves in broad circles in search of a host growing within its reach, while the root-let dies. This is perhaps the reason why it is called 'Nirmooli' (having no root) in Sanskrit. Since the development of its root is not essential its rootlet has no root-cap.

Through its creeping movement the seedling reaches a host. The stimulus caused by contact determines the primary inception and point of development of protuberances and haustoria. The protuberances come out of the epidermis and the haustoria from the inner tissues.

3L
JB. d. m. 21/1/16
N 25



of the parasite on the side of its stem in contact with the host. Both fix the climber to the host, but the latter go deep into the inner tissues i. e. upto xylem and phloem of the host to collect food. Once fixed to the host, the plant branches profusely, entangles the host and sends more haustoria at suitable places. By this way it can spread from one host to another if they are close by.

Another way of propagation is by cutting off a branch and throwing it over a host plant; after a few days it will come in contact with some branchlet of the host and send protuberances. Some days after, it will begin to branch and in course of time will spread over the host. Again if a cut branch having its growing apex uninjured is kept on sheltered and ventilated ground, although it will die at last, a few days later it will be found to have become a bit slenderer and longer than before. The growth at the apex will nearly balance a certain dead portion of it at the cut end. This shows how at the time of lack of food it can feed over a portion of its own body in order to live longer and lengthen itself to get at some source of food. This happens also in case of young seedlings when they are unable to attach themselves to a host soon enough.

It is a pest to herbs and shrubs, especially nettles and field-crops and sometimes attacks big trees if it gets a chance to come in contact with their branches. It thrives best in summer, when it finds its host quite leafless and at rest and thus quite easily robs the host of its stored food. It is quite like a thief, stealing the property of a house-

hold while its people are asleep. This is the reason also why its seeds generally germinate just before summer i.e. in spring

The reasons that (1) only its plumule grows while the rootlet dies, (2) number and size of its leaves are so much reduced, (3) it possesses very little or no chlorophyll and (4) it steals prepared foods from its host, justify the plant to be called a true parasite.

In Orissa this plant is found in the deciduous forests and amongst the village hedges. I have heard people saying that the root of Nirmooli is an unfailing remedy for snake bites, if applied over the bite. But I do not know whether its primary rootlet or haustorium is used for the purpose nor have I seen any person treated thus-

J. DWIVEDI.

Student 1923-25 Dn.

M. F. C.

Proceedings of the Forest Rangers' Association Central Provinces.

The following are some of the resolutions passed, by the Forest Rangers' Association Central Provinces and Berar, at a meeting held at Nagpur in December 1924:—

1. That this meeting is of opinion that the present promotions of the Rangers to the Provincial grade are inadequate and until 75 per cent of the posts in the Provincial cadre be filled by the Rangers, direct recruitment to the Provincial service should be abandoned altogether.

2. That this meeting is of opinion that the revised scale of pay sanctioned under Letter No. C. 168/529-15 dated the 26th April 1923 passed on the memorial of January 1921 from the Revenue Secretary to Government to the Chief Conservator of Forests, is not at all satisfactory since our requests in the memorial referred above have not been fully acceded to; hence it is necessary for the Executive Committee to draft out a fresh memorial dealing the following grievances of the Rangers:—

- (1) Initial pay should be Rs 100.
- (2) Our increments should start from the date of appointment.
- (3) There should be no bar at 125 for the Rangers in general and a pause of 5 years for Rangers with lower standard certificates of Dehra dun and Coimbatore Colleges.

3. That the revised Travelling Allowance rules are not satisfactory for those drawing above Rs. 150 while holding charges of the Ranges and others drawing Rs. 125 on special duties.

- (1) That all Rangers drawing above Rs. 100/-should be classed as 2nd class officers.

(2) In view of the increased cost of touring and the necessity of maintaining a pony for all forest Rangers a fixed horse allowance of not less than Rs. 40/-per month in addition to T. A. is absolutely necessary.

- (3) Bad climate allowance should be payable to all forest Rangers such as in Melghat, for all bad localities.

- (4) That the appointments, transfers, and promotions etc. of the Rangers be notified in the C. P. Gazette.

- (5) That the forest Rangers be invested with the following powers:—

- (1) To grant casual leave to all officers subordinate to them.
- (2) To transfer within their jurisdiction any Forest Guard serving under them.

6. That the Executive Committee be authorised to request C. C. of Forests of C. P. and Berar to advise all conservators to grant permission to all Rangers serving in their circles to leave their Jurisdiction for attending the meeting of the Association when called upon.

Extracts.

"The Snakes of Bombay Island and Salsette"

By, S. H. Prater, C. M. Z. S.

Curator, Bombay Natural History Society.

—From Journal of Bombay Natural History Society,

Vol XXX No. 1.

A. Boidoe.

Boas. The Boidoe are divided into two groups one including the *Boas*, and the other the *Pythons*. The *Boas* are typically South American, but certain genera of this sub-family are Asiatic,

among these the *Eryx*. Two species of the latter occur locally. The Red Earth Boa, and the Black Earth Boa. Both these occasionally form part of the local Snake charmer's outfit. The Black Earth Boa is a burrower, and extremely sluggish in habit. Like all Boas it is a constrictor and kills its prey by crushing it. Rats and mice are its chief victims. The Red Earth Boa is brick red in colour, rather blotched with white. The unpracticed eye might be misled into mistaking him for a Russel's Viper.

Pythons: Unlike the Boas, the Pythons are typically old world species. The common Rock snake or Indian Python, under suitable conditions attains the enormous length of 20 ft. Pythons are voracious feeders, but are also capable of long fasts: One kept alive in the Society's rooms refused food for 10 months; his record was however eclipsed by an individual in the Paris Zoo who is said to have gone on hunger strike for a period of two years and six months. The power most snakes possess of swallowing prey greatly exceeding their own calibre is remarkably exemplified in the python. The Society's journal records an instance of one that had swallowed a six feet panther!

By many, the Boas and Pythons are believed to paralyse their prey by a supposed power of fascination. It is a belief which must however be discredited. Observation has shown that the majority of animals possess no special fear of snakes; a duck placed in the Python's cage will waddle unconcernedly practically into the

jaws of the crouching reptile. I have seen a rat in a Russel's Viper cage squat himself among the coils of the snake.....The only animals that show a decided terror to snakes are monkeys, and it has been concluded that human beings have inherited the fear of snakes from their anthropoid ancestors!

B. Colubridæ.

(a) *Solid Toothed snakes*: (*Non-poisonous*).

The common wolf snake: (*Lycodon aulicus*).

A Slender glossy snake, pale to deep brown, with slender white rings on the back; often mistaken for the common krait.

The checkered water snake: (*Nerodia piscator*.) Is the common fresh water snake of all India.

The common Indian Rat snake: (*Ptyas mucosus*)

Grows to over 10 ft. in length; Colour varies from dark brown to tawny yellow. It is a dangerous snake when brought to bay. It will literally fling itself at its attacker, and although non-poisonous, is capable of inflicting a severe wound. Its principal food consists of rats which accounts for its presence among dwellings.

(b) *Back-fanged colubrines*: (*mildly poisonous*)

—Furnished with *grooved* fangs situated at the back of the upper jaw.

The Brown Tree-snake: (*Dipsadomorphus trigonatus*)

General colour grey, blotched with brown and white; very much resembles the saw scaled viper, (*Echis Carinata*); feeds chiefly on lizards.

The Green whip snake: (*D. mycterizans*)

Another typical tree snake; common in gardens. Its colouring is entirely protective, being almost a uniform light green.

(c) *Front-fanged Colubrids*: (*deadly poisonous*)

—Furnished with grooved or “*perforated*” teeth in the upper jaw.—

The Cobra :

Although it is possible to find him everywhere, the cobra possesses a fondness for taking up his quarters in the neighbourhood of dwellings. Loose brickwork old walls and masonry afford him comfortable quarters. His principal food consists of rats and frogs, but not being averse to a diet of eggs, the proximity of poultry would appear an added attraction.

I believe the cobra to be by nature a timid snake. One might meet with an aggressive individual, but like most snakes, his first impulse on encountering man is to escape. If this is denied to him he will probably rear up, expand his hood and be quite prepared to do you in, but if left alone he will probably retire with good graceIt should be noted that young cobras are from birth quite

capable of inflicting a mortal wound, being in tender youth—lively and irresponsible, they are more to be dreaded than their rather staid and sober minded forbears.

The Common Krait (*Bungarus candidus*):

Very apt to be confused with the non-poisonous ‘wolf snake’ (*Lycodon aulicus*); but there are obvious points of distinction if they are closely examined. The white linear rings of the Krait will be found to be more in evidence at the tail end of the body, while towards the head they are wider apart and less pronounced. Exactly the opposite holds good in the wolf snake.

The Krait must be regarded as one of our deadliest snakes, yet in disposition, the common Krait may be set down as extremely timid. It would take a great deal of provocation to make a Krait bite... It shares with the cobra a fondness for intrusion into dwellings in which instance it will usually take up its quarters in the roof or ceiling..... It lives chiefly on snakes.

Coral Snake: (*Callophis trimaculatus*)

Practically nothing is known as regards the poison or the habits of this species. It is a slender snake attaining a length of about 13 inches; the belly is a uniform coral red, and the tail has two black rings, a distinctive livery which ought not to be difficult to recognise.

Vipers.

Russell's Viper: (*Vipera russelli*)

Among viperine snakes, the poison apparatus of a Russel's viper shows the highest development. It is the specialist's hypodermic syringe '*in excelsis*'.....

In spite of its sinister appearance the Russel's Viper is really a handsome snake. Its colour is usually some shade of brown, ornamented along the length of the body by three rows or chains of oval spots of a deeper tone. In habit it is sluggish and morose showing a disinclination to move from a position it has occupied. It has a fondness for basking in warm sunlight. It may be found anywhere, in fields, paths and open jungle and often in the neighbourhood of dwellings attracted possibly by the presence of rats. It is an extremely prolific species. It is one of our deadliest snakes. Fortunately a serum is now manufactured which will effectually counteract both the poison of the Russell's Viper and the Cobra. The serum is available at most Government hospitals and dispensaries.

The Saw-scaled Viper. (Echis Carinata)

The name saw-scaled is derived from the fact that each of the tiny scales covering his flanks is provided with a central serrated saw-like ridge.....Its disposition is vicious in the extreme, and it will bite on the smallest provocation. It is essentially a snake on open sandy places.

The green pit Viper: (Trimeresurus gramineus)

This is easily recognised by its bright almost uniform green colouring, and the 'pit' or hole between the eye and the nostril. In

habits it is almost entirely a tree, or more correctly bush, haunting species where its green colour harmonises with the foliage, making it difficult to detect.

II.

As the Elephant sees it.

(By J. H. T.)

At the beginning of the monsoon, I was doing some inspection work about twenty miles from my head-quarters in South India. The Dak Bungalow was about a mile from the forest reserve covering what is known in the geography books (and nowhere else) as the Western Ghats. At about five o'clock on my first evening I set forth to explore, armed with a shot gun. I walked faster and farther than usual to get the hang of the country I was in, and passed without realising it into a privately-owned Zamindari forest. An hour before dark, having gone about four miles, mainly on a forest track, I was just turning to go home again, when I heard a jungle cock, making its cracked clucking crow down near some running water. I calculated that I had just time to get a shot at him and have daylight enough for my walk home. Pushing down a deer-path, I caught sight of him below me in a pool by the stream. Just ahead on the path was a drift of leaves which owing to a recent shower, I knew, would deaden my foot-steps. A jungle-fowl has to be stalked—he is extraordinarily wary. Walking over leaves and teakwood debris, I thought nothing of this drift of leaves and trod straight on to it.

I have always heard that in seconds of quick movement years of thought can be gone through, and certainly then I had time to think 'this is the softest bed of leaves I've ever trodden on'. I can remember that flashing through my brain when I was waist-deep. Later on it grew dark, and I remember quite deliberately hoping that, like Alice in her rabbit hole, I should find a way out at the bottom. All that in less than a second—for the next time I really knew myself was a piece of bewilderment standing up in a dark pit seven feet square and, as I subsequently discovered 16 feet deep.

I knew then what a trapped animal feels, for my mind was still full of "just time to get back before dark". I tore at the least unlikely corner, scrabbling in the sand without ever climbing more than two feet up the perpendicular sides. The moment I got a foothold, it gave way and I was worse off than before, the wall becoming concave instead of decently perpendicular, and as a handhold it was even worse—I never could get hold of anything, and always fell over backwards, getting, a must confess, pretty frightened in the process. After a bit I collected I few of my wits and feverishly started to hack out steps with the butt of my gun. The most I ever got up was four steps. They or my handhold gave way. The hopelessness of my position grew on me—especially, when I remembered the illegality of elephant pits, and the consequent interestedness of the jungle people (Sholagas) in keeping searchers away from me.

As time passed, however, I grew more composed, and even began to sing and to count my blessings. To start with, I had fallen

with a loaded and cocked gun in my hand and had neither shot nor disembowelled myself. There was no brushwood at the bottom of the pit (as in Government pits) and yet I had fallen sixteen feet without anything more than a monumental bruise on my thigh, which only reached its maximum of about soup-plate sized blackness in six days and took six weeks to disappear, a few scratches, two sprained fingers, and a long, bone deep cut on my thumb. This last was the only ugly damage; but of all these I was absolutely unconscious, until the frenzied efforts proper to a trapped animal ceased.

I began to calculate my chances. I guessed that my own servants would not find me, but that if they did come out so far they could not possibly be within ear-shot till 8-30, for they would be expecting me till 7-30. That made me look at my watch, and I found it was only 6-10. I had only been down about twenty minutes, but lived hours. What about the whole night at that rate? However, the obvious thing was to make the best of the remaining bit of day-light, so I started licking my wounds, and trying to get as much of the Madras Presidency out of that cut as I could. Of course, I was without a handkerchief (I always am), and had only a shirt and shorts on—no great protection on a monsoon night. Besides, I was drenched with perspiration, and the sand had turned me into sand paper. So, after cleaning my finger as best as I could, I took off and shook all my clothes, to try to make a clean spot in which to rest the thumb.

Meanwhile, I got more hopeful recognizing that the servants would let my Collector know in the morning. He would then motor out, organise a beat, and before I had been down the pit 24 hours I should be out. My great fear was sunstroke next day, and I hoped to dodge that. Of the rightful occupant coming down on the top of me I had no fear, for I had fetched down half the "roof", and my lord the elephant is the world's wariest walker. With that brushwood, I made a bit of a bed, and in so doing uncovered the remains of some animal that had just been devoured by large fat black-beetles. I was congratulating myself that I had my gun to save me from the fate of that previous occupant alive when I could not but burst out laughing at my jungle cock, which arrived above and crowded exaltation down at me. Looking about the pit I also saw that my captivity was shared by a tiny frog, for which I could only feel a comradely interest. His untiring efforts to climb up the walls made me pity him but I do not think that even Bruce himself would have been inspired to a ninth attempt under those conditions. One cheering thing that the frog could tell me was that there were no snakes under the debris.

Soon it got dark, and I blessed my luminous wrist watch, the cheeriest friend I ever had, for contrary to expectations, it fairly hustled time along. I had decided to shout every quarter and fire every hour (having only ten cartridges and a husky voice), and no sooner had I shot off one barrel than it was time to fire the other. The only unpleasant parts of the vigil were the forlorn longing for the dinner await-

ing me four miles off upstairs, the damp cold (it had begun to drizzle) and a party of wonderfully pertacious mosquitoes. Later the mosquitoes were joined by the beetles, which investigated me prematurely, and had to be picked off between finger and thumb, and flung away with a squeeze to their plumpness. There was plenty to think about, and I must say I congratulated myself on being able to keep quiet and hops, unlike a wild animal or the luckless frog, everlastingly, making useless efforts to get out. At 11-30 I decided to give up firing for the night, and reserve my remaining cartridges to guide next day's possible search party. Almost at once, it seemed, I suddenly got a queer hope. Five minutes afterwards I heard a shout. I bellowed in answer and fired, nearly frightening away a rescue party of Sholagas. Luckily they came on, and to see a lantern creep down and down the side of that prison was a joy even more delirious than the first armistice. The little man had been sent out by my boy when he gave up the search for the night, and this being a Zamindari forest they were not afraid of acknowledging the pit or of finding me in it.

It was a painful four miles back, but I arrived to find that my cook with Eastern wizardry, could put on the table at 2 a. m., the same hot fresh dinner that ought to have been eaten at 8 p. m. Nor till I was half way through, I must confess, did I remember my little comrade frog still at the bottom.

Later I went to look at my dungeon and found it again reroofed for the unwary—so cleverly that if I had not known it was there I should have walked into it again. Even at such wasted cleverness, I

did not share my Collector's sympathy for the unfortunate Sholagas, who had gone expecting an elephant and found they had caught only an assistant Collector. But a few days afterwards I met the Governor, who had just been shown the way the forest people catch elephants. I was able to tell him how the elephant feels about it.

—"MANCHESTER GUARDIAN."

—Extract from the "Madras Mail" May 15th 1925.

III.

From "American Forests and Forest Life" January 1925.

Where Pagans Practice Forestry.

Forced by Stern Necessity, Pagan Tribes of Northern Luzon Have Developed a "Tribal Forestry" Dating Back Many Hundreds of years

BY THEODORE C. ZSCHOKKE,

Forester, Philippine Bureau of Forestry.

Forestry may be new to most people of the Philippines, but it is not new to certain pagan tribes of northern Luzon. Through hundreds of years these tribesmen, faced with the stern problem of survival, have developed what is probably the oldest example of forestry in the world. That, at least, is the belief of American foresters working in the Philippines, after weighing evidence which threads back to a

civilization the history of which is a blank. These people belonging to three "tribes" which the casual observer lumps together as Igorots, but which are the Ifugaos, the most highly developed of the mountaineers; the Bontocs, the most warlike, and the Lepanto Igorots, more peaceable than the Bontocs, but almost as far advanced in forestry as the Ifugaos. These people live on the backbone of Luzon and occupy a region of great natural beauty among mountains from four to eight thousand feet above sea-level.

An evidence that the Ifugao civilization is very old is the very extensive system of terraced mountain sides, which required centuries of laborious effort to construct. It is impossible to conceive the immense amount of labour involved in the construction of these terraces. Retaining walls are of dry masonry, and in many cases water-worn stones were used that could have come only from a stream several yards distant from the wall and two hundred feet below it.

Finally, the laws and decisions covering a multiplicity of details regarding the use of irrigation water and the protection of the sources of this water through the regulation of the forests indicate of long period of development in which forest protection has unquestionably been a prominent factor.

The Ifugaos inhabit the pine and hardwood ridges. The latter ridges originally were entirely covered with forests, but clearings have

completely destroyed these forests on many ridges, leaving only scattered groves or individual trees. These clearings are now occupied by "Bilao," a coarse grass from ten to fifteen feet high, which forms impenetrable masses, resembling the canebrakes of the lower Mississippi Valley. The region is one having a short dry season and frequent showers on the higher ridges.

In the hard-wood region the Ifugaos, in the course of centuries, have built up an enormous system of terraced rice fields which are the wonder of the world. These fields start at the stream beds and rise toward the mountain summits in an apparently endless succession of terraces. Near Banaue, for example, there are over one hundred tiers of terraces, and the terraced fields, extend for miles up and down the valley, while in the vicinity of Kiangan every little valley has been terraced to the utmost capacity of the water supply. The terraces are often ten to thirty, sometimes even sixty, feet high, and the fields frequently are not as wide as the terraces are high. Every plot of soil is utilized, and even flat-topped boulders in the fields are covered with soil and thus forced to produce tobacco or vegetables.

The better to understand the origin of tribal forestry, it is necessary to consider land tenure and water rights. Apparently all the Igorot "tribes" recognize the land title of the men who make a rice field. In Ifugao, at least, while the owner may mortgage the rice land, the mortgage cannot be foreclosed. There are cases where the descendants of the borrower have redeemed the land. On the other hand, pasture

even when closed by a sod wall, and lands devoted to raising temporary crops remain the property of the original claimant only as long as beneficial use is made of the land. After the land has been abandoned for one year any one else may occupy it.

The ownership of trees is also recognized. Very often, however, such ownership confers no rights to the land, even in Ifugao, although after the owner of the trees has felled them he has the first right to the land, because felling the trees is regarded as the first step toward cultivating it. However, any one else may cultivate the cleared land, and the owner of the trees that formerly grew on it, in order to protect his rights, must lay claim to the land before the cultivator has done any work. If he has been slow in making a protest, he is obliged to pay the cultivator for the work done or he may even forfeit all right to the land.

Water rights are defined by a mass of oral laws, customs, and decisions.

The water for irrigating the rice fields comes from springs originating near the fields, or else it is taken from streams rising in the gullies higher up the mountain side. In some places the forest area is inadequate to conserve the water needed for such large irrigation projects as depend on the water, and therefore the Ifugaos have some stringent local laws regarding forests in order to protect the water supply.

Three classes of forest are recognized by them, namely, public or common forests, protection forests, and private woodlots. Any one

who cares to do so may use the public forest for securing timber and fuel or for making clearings in which to raise food crops. In other words, the public forest is not guarded from destruction, because it always is far from a settlement. The protection forest is found around springs and at the headwaters of streams used for irrigation, and, as a rule, it is a private forest. Residents of the vicinity may secure fuel from inferior species, and those who need timber for house construction receive permission from the owners of the forest to cut trees suitable for their purpose. In this way the best trees are favored. No clearing is allowed in such forests, and Professor Beyer, ethnologist in the University of the Philippines, states that this control over protection forests extends to those which are privately owned. He refers to one case where an Ifugao sold a forest to some one who intended to fell the trees. Public sentiment forced him to cancel the sale, as the forest was needed to conserve water for irrigation.

Although the protection forests seem small in extent, the bilao (tall grass), as already mentioned; occupies large areas and as a conserver of moisture this grass is nearly as effective as the forests. The bilao areas are cultivated in a haphazard rotation method. The grass is cut, the stalks are burned, and the roots are dug up, after which native sweet potatoes are planted. After several years the land is abandoned, because the potatoes become too small to be worth anything; whereupon the land reverts to grass once more. In about six years or more another clearing can be made. As a rule, there are no restrictions about making

clearings in grassland, except that at the headwaters of streams the number of these clearings is regulated, as it is recognized that too large an area of cleared land might affect the springs and streams.

The private woodlots are numerous and some are extensive. Even single trees have owners.

In the vicinity of Banaue, where the most extensive terraces are located, the trees have disappeared within the last fifteen years. In the construction of schools, as well as municipal and other public buildings, the most convenient trees were cut by the order of authorities. This most effectually destroyed private ownership in trees, and as a result no trees are now found on the hills near Banaue. Building material is now brought from forests twelve miles from the town and fuel is scarce, thus forcing many people to use the stems of the bilao.

The forest policy does not extend to the comparatively recent settlements at the base of the pine ridges. Here the water supply is ample, and though there are no trees near the settlements, there seems to be no effort made to establish forests. Furthermore, the fires in the short grass of the pine forests prevent the spread of the pine trees. Only a few fruit trees are found at the settlements, and there does not seem to be any effort made to plant fuel or timber trees, as is the case elsewhere. In this region the stalks of the bilao, which are half an inch in diameter, are used for fuel, fencing and building material.

In Bontoc soil conditions are entirely different. Rice is raised only in favored spots, such as river bottoms, and therefore the staple

food of the people is sweet potatoes, which are raised in small patches where good soil can be found. The pine forests, which occur here on all of the ridges, extend almost to the fields. There is no timber famine, and the forest policy is not one of protecting water supplies, as in Ifugao, but of conserving forests for local use. The Bontocs recognize four kinds of forests, namely, the public forest, the communal forest of two kinds, the ceremonial grove, and the private woodlot.

As in Ifugao, the public forest is open to anyone, where he is free to do as he pleases. He may cut trees and sell the lumber or firewood, he may make a clearing, or he may fence it for a pasture. The communal forests are very carefully regulated by the village council of old men. Two forests are recognized, namely, the forest for the old folks and one for the able-bodied residents of the village. The grove near the village is set aside for the aged and infirm, where they can gather dead branches and use windfalls. The more distant forest is reserved for the able-bodied members of the settlement, where fuel and building material may be secured under supervision of the village council. Any timber intended for sale or for use of outsiders—that is, government officials and others not *bona fide* residents—must be secured from a public forest or else it must be purchased from the owner of a woodlot.

Each village has single trees, or perhaps several trees, or even a grove, which is recognized as the ceremonial grove. No fuel is cut from these trees which occupy an important place in the life of the community, being the center of religious and civil activities. Ownership

of trees is recognized near towns, especially near the capital, Bontoc, where entire hillsides are claimed by individuals.

The “tribal” laws of the Bontocs prescribed penalties for forest destruction. Those offences connected with the ceremonial grove were more in the nature of offences against religion and were punished as such. The communal forests were protected against unauthorized cutting and against grass fires. The person who permitted fire to escape from his field was held responsible for damages if the fire burned over the communal forest. The penalty usually was a pig, which was roasted and eaten by villagers.

The Lepanto Igorots apparently have “tribal” customs similar to those of the Bontocs. They live at the edge of the Abra River basin, a treeless waste of steep hillsides, and their forest customs prevail only in a few settlements where pine forests still exist, but they are much stricter in protecting the pine trees and communal forests.

With the advent of the Americans, or rather with the establishment of civil government among the pagans, the new laws have superseded the “tribal” laws based on ancient customs. The general result will be a long period of unrest and uncertainty while adjustments are being made, and during this period the forests will suffer.

It is evident that the Ifugao policy of forest protection is the result of bitter experience, because the Ifugao laws impose damages for crop failure or rice shortages due to a lack of water caused by forest destruction. These damages are imposed annually upon the offender

until water conditions become normal once more. The Ifugaos also practise a sort of selection system, in that trees suitable for posts and house construction are not cut for firewood.

The private ownership of trees is based upon personal convenience or profit and is only incidentally connected with the conservation of water. Among the Ifugaos, no policy exists regarding public forests in regions where there is an ample supply of water. In other words, irrigation forced forest protection upon the Ifugaos, because they are at the headwaters streams. Why the Bontocs started protecting forest is not clear, but, as their policy is limited to protecting communal forest near settlements, it is very likely that in ancient times, a certain tract of forest near the village was set aside for common use and the rest of the land was open to all settlers. As time went on, the original communal forest dwindled until it became too small; whereupon this was assigned to the aged and another parcel was designated as a communal forest. Naturally, as a result of clearings, this forest is usually at a considerable distance from the village. The Lepanto Igorots at present have few forests left, and their forest policy doubtless had its origin in the scarcity of timber. As they use pine trees only, they are devoting their attention to protection, and are careful to prune trees when getting fuel instead of felling the trees. In forests near villages the pruning seems to be too severe, but, on the other hand, the dense stand of young trees will soon require thinning, because they are protected from ground fires.

Gazette Notifications.

17—2—1925.

Mr. D. M. D. Currie, Deputy Conservator of Forests, leave on average pay for eight months with effect from 10th May 1925.

Mr. J. M. Sweet, Forest Research Officer, leave on average pay for seven months with effect from or after 25th March 1925. The leave granted to Mr. E. M. Crothers, District Forest Officer, West Kurnool in Notification No. 15 published at page 148 of gazette dated 20th January 1925 is cancelled.

Mr. T. V. Venkateswara Iyer, Extra Assistant Conservator of Forests, Madras, is appointed to be an Assistant Instructor at the Forest Research Institute, and College, Dehra Dun, with effect from the afternoon of the 7th January 1925.

24—2—1925.

In modification of notification No. 332 dated 25th November 1924, Mr. R. D. Richmond, Conservator of Forests, leave on average pay for eight months and on half average pay for two and a half months with effect from 7th May 1925.

Mr. M. C. Chandy, Extra Assistant Conservator of Forests is granted leave on average pay for one day, viz. the 3rd January 1925 with permission to prefix the Christmas, and New year holidays.

3—3—1925.

Mr. M. F. Bridge, Deputy Conservator of Forests attached to the Chief Forest Engineer, to be Forest Economist.

ii.

Mr. B. A. Cariappa, Extra Assistant Conservator of Forests, will, on relief by Mr. K. A. Chengappa, be attached to the Nellore Division.

10—3—1925.

Mr. J. C. Wrench, Assistant Conservator of Forests, leave on average pay for seven months with effect from 24th March 1925 and leave on half average pay for one month in continuation thereof.

17—3—1925.

Mr. J. S. Connolly, District Forest Officer, South Coimbatore, to be Forest Research Officer, from or after 25th March 1925.

Mr. R. S. Brown, District Forest Officer, North Coimbatore, to be District Forest Officer, South Coimbatore.

Mr. J. E. M. Mitchell, Deputy Conservator of Forests attached to the South Coimbatore Division, to be District Forest Officer, North Coimbatore.

M. R. Ry. Rao Sahib K. R. Venkataramana Ayyar Avergal, District Forest Officer, Upper Godaveri, is granted leave on average pay for two and a half months from 1st May 1925.

M. R. Ry. V. N. Seshagiri Rao Avl., Extra Assistant Conservator of Forests, will act as District Forest Officer, Upper Godaveri Division during the absence of M. R. Ry. Rao Sahib K. R. Venkataramana Ayyar Avl., on leave.

Mr. R. S. Brown, Assistant Conservator of Forests, on relief by Mr. J. E. M. Mitchell, will be attached to the South Coimbatore Division until he takes charge of the Division from Mr. J. S. Connolly.

iii.

24—3—1925.

Mr. M. C. Chandy, E. A. C. of Forests, on leave, to be District Forest Officer, East Salem, in relief of Mr. F. D. Ardagh.

Mr. F. D. Ardagh, District Forest Officer, East Salem, to be attached to the Ganjam Division from 1st April 1925, and to be District Forest Officer, Ganjam, from or after 1st May 1925 *vice* Mr. J. H. Longrigg, granted leave.

M. R. Ry. B. S. Kesava Vittal, Extra Assistant Conservator of Forests, Wynaad, is attached to the Conservator of Forests, Second Circle Bellary. This cancels the notification attaching him to the District Forest Officer, Kurnool South (dated 17th February 1925).

Muhammad Abdul Hafiz Sahib Bahadur, Extra Assistant Conservator of Forests, Nellore, is posted as Assistant Forest Utilization Officer under the Chief Forest Engineer.

31—3—1925.

Mr. A. M. C. Littlewood, District Forest Officer Guntur, to be attached to the Nilambur Division, and to be District Forest Officer Nilambur, when Mr. Minchin proceeds on other duty.

Mr. E. K. Krishnan, District Forest Officer, North Vellore, to be District Forest Officer, Guntur.

Mr. S. V. Devadasan, District Forest Officer, Chinglepet, to be District Forest Officer, North Vellore, and to hold charge of the Chinglepet Division in addition, pending its abolition.

M. R. Ry. A. Raja Nayakar, District Forest Officer, Kurnool South is granted leave on average pay for twenty one days with effect from 11th February 1925.

iv.

M. Amir Padshah Sahib Bahadur, Extra Assistant Conservator of Forests, South Cuddapah Division, is transferred to the Chittoor District, and is attached to the District Forest Officer, Chittoor.

7-4-1925.

Mr. A. Wimbush, Acting Conservator of Forests, V Circle, to act as Conservator of Forests, Working Plans Circle.

Mr. D. T. Barry, Acting Conservator of Forests, I Circle, to act as Conservator of Forests V Circle.

Mr. A. A. F. Minchin, Deputy Conservator of Forests, and District Forest Officer Nilambur, to act as conservator of Forests, I circle.

Mr. T. A. Whitehead, Acting conservator of Forests, III circle, to act as conservator of Forests, VI circle.

M. R. Ry. M. S. Rangaswamy, Probationary Extra Assistant Conservator, Palghat Division, is posted to the Mannarghat Range for special duty with effect from 11th February 1925.

Messrs. P. W. Davis, and H. A. H. G. Hicks, Assistant Conservators, are attached to the conservator of Forests, VI circle, until further orders.

Mr. M. C. Chandy, Extra Assistant Conservator of Forests, is granted an extension of leave on average pay for five days in continuation of the leave for one month already granted to him.

M. R. Ry. A. R. Narasimha Ayyangar Ayl, Extra Assistant Conservator of Forests, the Nilgiris, is attached to the District Forest Officer, Wynad.

v.

21-4-1925.

Mr. O. H. C. Shelswell, Deputy Conservator of Forests, has been granted by the High Commissioner for India an extension of leave for six months on medical certificate.

Mr. H. W. A. Gaudoin, District Forest Officer, South Vellore, is granted leave on average pay for one month from or after 1st May 1925.

28-4-1925.

M. R. Ry. V. N. Seshagiri Rao, Extra Assistant Conservator of Forests, Lower Godavari Division, is granted leave on average pay for five days from 15th April 1925.

M. R. Ry. A. Hanumantha Rao, Extra Assistant Conservator of Forests, South Vellore Division, is posted to act as District Forest Officer, South Vellore, during Mr. H. W. A. Gaudoin's absence on leave

5-5-1925.

With effect from 1st May 1925, the Madras Presidency will, for the purpose of the forest administration, be divided into five circles as shown below.

I Circle. (Head quarters—*Waltair*.)

Divisions :—

- (1) Ganjam
- (2) Vizagapatam.
- (3) Godavari, Upper.
- (4) Godavari, Lower
- (5) Nellore
- (6) Guntur

II Circle. (Head Quarters—*Bellary*).*Divisions :—*

- (1) Kurnool East.
- (2) Do. South.
- (3) Do. West.
- (4) Bellary.
- (5) Anantapur.
- (6) Cuddapah North.
- (7) Do. South.
- (8) Do. West.
- (9) Chittoor.

IV Circle (Head quarters—*Salem*).*Divisions :—*

- (1) Vellore, North.
- (2) Do. South.
- (3) Do. West.
- (4) Salem, North.
- (5) Do. Central.
- (6) Do. East.
- (7) Trichinopoly (South Salem).

V Circle, (Head quarters—*Coimbatore*).*Divisions :—*

- (1) Madura.
- (2) Tinnevely.
- (3) Kollegal.
- (4) Coimbatore, North.
- (5) Do. South.

VI Circle. (Head quarters—*Ootacamund*).*Divisions :—*

- (1) The Nilgiris.
- (2) Wynaad.
- (3) Nilambur.
- (4) Palghat.
- (5) Mangore North.
- (6) Do. South.

With effect from the same date a new Working Plans Circle will be formed with head-quarters at Ootacamund, and will be known as III (Working Plans) Circle.

* * * *

M. R. Ry. S. Ramasami Ayyar, Extra Assistant Conservator of Forests, is granted leave on average pay on medical certificate for six months with effect from 19th February 1925.

Mr. K. T. Matthew, Assistant Conservator of Forests, attached to the Logging Engineer, is transferred from Karkal in the North Mangalore Division to Tinnevely with effect from 31st January 1925.

The leave for one and a half months granted to M.R.Ry. V. Narayana Ayyar Avl., Extra Assistant Conservator of Forests, Fourth Circle, is cancelled.

Saiyid Riazuddin Sahib Bahadur, Extra Assistant Conservator of Forests, South Cuddapah Division is transferred to West Cuddapah Division to hold charge of Sanipaya Range as a temporary measure.

12—5—1925.

Messrs. P. W. Davis, H. A. H. G. Hicks, and J. Coode, Assistant Conservators, to be working plan officers attached to the Working Plan Circle.

Mr. C. Mahony, Extra Assistant Conservator, working under the District Forest Officer, Ganjam, to be Working Plan Officer attached to the Working Plan Circle.

M. R. Ry. M. H. Krishnasamy Avergal Extra Assistant Conservator of Forests, in charge of Ambasamudram Range, Tinnevely District, and M. K. Ry. B. A. Kariappa Avergal, Probationary Extra Assistant Conservator working under the Logging Engineer, to be Assistant Working Plan Officers attached to the Working Plan Circle.

19—5—1925.

The Services of Mr. G. C. Robinson, Deputy Conservator of Forests, on return from leave, will be placed at the disposal of the Chief Commissioner of Coorg for appointment in Coorg as Chief Forest Officer in relief of Mr. V. G. Darrington.

M. R. Ry. M. H. Krishnaswami Aiyar Avergal, Extra Assistant Conservator of Forests, will on completion of development work in Tinnevely be attached to the Conservator's Office, Fifth Circle Coimbatore, until further orders.

Mr. N. D. M. Sahni, Assistant Conservator of Forests in charge of Pollachi Range, will, on relief by Ranger K. O. Anandan, be attached to the District Forest office, South Coimbatore.

26—5—1925.

Mr. H. R. M. Law, District Forest officer, Palghat, is granted leave on average pay two months, with effect from 1st June 1925, or date of relief.

Mr. H. E. Brown, Extra Assistant Conservator, the Nilgiris, is posted to act as District Forest officer, Palghat, during the absence of Mr. Law on leave or until further orders.

2—6—1925.

Mr. E. M. Crothers, District Forest Officer, West Kurnool, leave on average pay for four months with effect from 8th June 1925.

Notifications relating to Rangers.

H. TIREMAN Esq.,

Ag. Chief Conservator of Forests.

The following promotions of Rangers are ordered:—

5—5—1925.

I. *With effect from 9—11—24 vice M. R. Ry. B. V. Vaideswara Ayyar, D. D. R. Ranger V Grade reduced to VI Grade for one year: M. R. Ry. A. Bhavayya M. R. H. from VI grade permanent to V Grade Sub-protom.*

II. *With effect from 15—12—24 vice M. R. Ry N. C. Mahadeva Ayyar, M. R. H. Ranger VI Grade, dismissed from service: M. R. Ry. C. S Ganapathi, M. R. H. 1921, Supernumerary Ranger to VI Grade sub-protom.*

III. *With effect from 31—12—24 vice M. R. Ry. M. Umapathi Mudaliar M. R. H. Ranger, VI Grade reduced to VII Grade for one year: M. R. Ry. Behara Bhagirathi M. R. L. from VII Grade permanent to IV Grade sub-protom.*

IV. *With effect from 7—1—25 vice M. R. Ry. K. Balakrishna Rao, Ranger IV Grade deceased. M. R. Ry. T. D. Ponnayya M. R. Hons from VI Grade sub-protom to IV Grade permanent.*

(This promotion takes effect only from 2—3—25)

Mr. Myers M. R. H from V grade permanent to IV grade sub-protom.

M. R. Ry. S. Rangaswami Ayyangar, M. R. Honours 1924, Supernumerary Ranger, to V grade permanent.

V. *With effect from 19—1—25 vice Mr. J. M. Abraham, D. D. R. Ranger IV Grade retired from service. M. R. Ry. P. Sankunni Menon, M. R. Hons from IV Grade sub-protom to IV Grade permanent.*

K.

Mr. D. E. Lewin from V Grade permanent to IV Grade sub-protom.
M. R. Ry. U. Vriddachalam Pillai, M. R. Honours 1924. Supernumery Ranger, to V Grade permanent.

VI. With effect from 1—2—25 vice M. R. Ry. S. Vasudeva Reddi, D. D. R. Ranger I Grade retired from service. Mr. K. P. Benjamin D. D. R. from I Grade sub-protom to I Grade permanent.

M. R. Ry V. S. Subramanya Ayyar D. D. R. from II Grade permanent to I Grade sub-protom.

M. R. Ry. A. Rama Hebbar D. D. R. from II Grade sub-protom to II Grade permanent.

M. B. Ry. R. Subrahmanya Ayyar from III Grade permanent to II Grade sub-protom.

M. R. Ry. C. M. Narayanan from III Grade sub-protom to III Grade permanent.

Mr. H. Myers M. R. H. from IV Grade sub-protom to IV Grade permanent.

M. R. Ry. T. Paramasivam Pillai M. R. H. from V Grade permanent to IV Grade sub-protom.

M. R. Ry. K. Dooma Shetty M. R. Honours 1924, Supernumerary Ranger, to V Grade permanent.

VII. With effect from 18—2—25, the date of the formation of the new Beltangady Range, M. R. Ry. D. Krishnaswami Ayyar M. R. H. from VI Grade sub-protom to VI Grade permanent.

M. R. Ry. A. Sitaramayya, M. R. H. 1921 Supernumery Ranger to VI Grade sub-protom.

VIII. With effect from 25—2—25 vice M. R. Ry. B. Veerabhadrachari, Ranger VII Grade deceased. M. R. Ry. P. V. Krishna Rao Naidu, M. R. L. 1920 Supernumerary Ranger to VII Grade permanent.

IX. With effect from 1—3—25 vice M. R. Ry. B. V. Nagaraja Ayyar M. R. Hons Ranger II Grade reduced to III Grade for one year. M. R. Ry. N. K. Sarma M. R. H. from III Grade permanent to II Grade sub-protom.

X. With effect from 7-3-25 vice M. R. Ry. N. S. Eswara Ayyar, Ranger VI Grade reduced to VII Grade for 3 months. M. R. Ry. R. Jagannatham Nayudu from VII Grade permanent to VI Grade sub-protom.

XI. With effect from 7—3—25 vice M. R. Ry. B. V. Jogeswara Rao Ranger V Grade invalidated from service. P. B. Saiyid Yahia Sahib Bahadur M. R. H. from V Grade sub-protom to V Grade permanent.

M. R. Ry. Y. Peddalakshmayya Naidu M. R. H. from VI Grade permanent to V Grade sub-protom.

M. R. Ry. V. N. Subrahmanya Ayyar, M. R. H. from VI Grade sub-protom to VI Grade permanent.

M. R. Ry. P. Sankunni Nayar, M. R. H. 1921 Supernumerary Ranger to VI Grade sub-protom.

13—5—1925.

The following promotion of a Ranger is ordered with effect from 1—2—1925 consequent on the confirmation of M. R. Ry. C. M. Narayanan, Ranger III Grade sub-protom as Ranger III Grade ordered in this office Ref. No. 8066 B4-24-1 dated 5-5-1925:—
M. R. Ry. A. P. Srinivasa Ayyangar from IV Grade permanent to III Grade sub-protom.

18—5—1925.

The following promotion of a Ranger is ordered with effect from 15—4—1925 vice Mr. J. A. Aranha, D. D. R. Ranger I Grade reduced to II Grade for 6 months:—

Mr. R. E. Lemos M. R. Hons from II Grade permanent to I Grade sub-protom.

xii.

29—5—1925.

(i) *Consequent on the restoration to the VI Grade of M. R. Ry. N. S. Eswara Ayyar, Ranger temporarily reduced to VII Grade.*

M. R. Ry. R. Jagannatham Nayudu from VI Grade *Sub protem* to VII Grade permanent.

(ii) *Consequent on the restoration to the II Grade of M. R. Ry. M. Muthuswami Ayyar. Ranger temporarily reduced to III Grade.*

M. R. Ry. N. K. Sarma, from II Grade *sub protem* to III Grade permanent.

First Circle.

27—2—1925.

1. Under Rule 81 of the Fundamental Rules, the leave for one year granted to Mr. D. E. Lewin, M. R. H. Ranger V Grade, Ganjam, in this office S. O. No. 12 of 1924 dated 22-2-1924 is extended by leave on half average salary for two months.

7—3—1925.

2. Under rule 81 of the Fundamental Rules M. R. Ry. B. Bhagirathi M. R. L. Ranger 7th Grade, Ganjam, is granted leave on average pay on medical grounds for six months with effect from 14th Dec. 1924.

7—3—1925.

3. Under Rule 81 of the Fundamental Rules, the leave on average pay for three months granted in this office S. O. No. 45 of 24 dated 22-10-1924 to I. Sambasiva Rao Naidu M. R. H. Ranger 6th Grade Godavari Upper is extended by two months on medical grounds.

17—3—1925.

4. Under Rule 81 of the Fundamental rules Mr. S. A. Dawson Ranger 5th Grade Parlakimidi Maliahs is granted leave on average salary for four months with effect four date or relief.

xiii.

Range officer, Devagiri Range will be in additional charge of Mahendra Range until further orders.

1—4—1925.

5. On expiry of the leave (13-4-1925) granted to him in this office S. O. No. 12 of 25 dated 7-3-1925, M. R. Ry. I. Sambasiva Rao Naidu, M. R. H. Ranger VI grade is posted to Godavari Lower division for the charge of the Polavaram Range. He should relieve Ranger P. Doraiswami Iyer granted leave.

30—4—1925.

6. The leave on average pay for 4 months granted in III Circle Conservator's S. O. No. 82 1924 dated 24-10-1924 to M. R. Ry. P. Chengal Reddy M. R. H. Ranger VI grade, is extended by three weeks on medical grounds.

30—4—1925.

7. On expiry of the leave granted to him (8-5-1925) Mr. D. E. Lewin, M. R. H. Ranger V Grade is posted to Bontha Range, Ganjam Dt.

2—5—1925.

8. Under Rule 81 of the Fundamental Rules, the leave for one year and two months granted to Mr. D. E. Lewin, M. R. H. Ranger V grade Ganjam in this office S. O. No. 12 22-2-1924 and S. O. No. 7 27-2-25 is extended by leave on half average salary for fifteen days.

9—5—1925.

9. On return from leave M. R. Ry. P. Chengal Reddi, M. R. H. Ranger VI grade is posted to Nellore district to do general duty under the Range officer Udayagiri Range.

10. The leave on average pay for 4 months and three weeks granted in the III Circle Conservator's S. O. No. 82 of 1924 dated 24th October 1924 and this office S. O. No. 23 of 1925 dated 30—4—1925 to M. R. Ry. P. Chengal Reddi M. R. H. Ranger VI grade is extended by ten days on medical grounds.

10

11. Under Rule 81 of the Fundamental Rules, D. Krishnaswamiah, M. R. H. Ranger VI grade, Nellore District, is granted leave on average pay for two months with effect from 25th May 1925 on medical grounds.
12. Under Rule 81 of the Fundamental Rules M. R. Ry. B. K. Krishna Rao, Ranger 3rd Grade, Bezwada Range, is granted leave on average pay for 4 months with effect from 25-7-1925 or date of relief,

Second Circle.

12—3—1925.

M. R. Ry. B. Punniiah Panthulu, M. R. H. Range Officer Dornol Range is posted to be in additional charge of Rachakonda Range. To relieve No. (2) *at once*.

2. Mr Abdul Hussain kirmanai, Range Officer Rachakonda Range on relief by No. (1) is transferred to Markapur Range. To relieve No. (3) *at once*.
3. M. R. Ry. Pedda Lakshmi Naidu M. R. H. on relief by No. (2) is placed on a special duty to prepare a stock map of the Gudem Markapur and Morrichervu forests. His head-quarters is to be Eguvacherlopulli pending orders of the Chief Conservator whose sanction is necessary before it can be placed in special tracts.

13—3—1925.

M. R. Ry. K. Tatacharya D. D. R. Ranger IV Grade on return from leave is posted to be in charge of Giddalore range. To relieve No. (3).

2. M. R. Ry. B. Krista Rao, M. R. H. supernumerary Ranger on relief by No. (1) is posted to Kurnool west division for the survey of Teak plantations. This posting supersedes that of supernumerary Ranger P. Gopalan M. R. L. who will not join duty as ordered in S. O. No. 26-25 dated 15—2—25.

3. M. R. Ry. K. Purnushothama Rao, M. R. H. Ranger VI Grade on return from leave is posted to Kurnool South division on working plan duty.
4. M. R. Ry. K. Tiruvenkatachari M. R. L. Ranger VI Grade retransferred to this Circle from the Logging Engineer in Chief Conservator's L. Dis. No. 6733/24 dated 10—3—25 is posted to be in charge of Kudligi and Harpanahalli Range in relief of No. (5).
5. N. C. Mahadeva Pillai D. D. R. on relief by No. (4) to proceed to Kurnool West and take charge of Sivapuram Range from Ranger Officer Kurnool who is now in *additional* charge.

21—3—1925.

Mr. J. B. Rodrigues M. R. H. Supernumerary Ranger working as Assistant to working plan Officer Kurnool South Division is granted leave on average pay for one month from the 15th April with permission to prefix Easter Holidays from the 9th April.

21—3—1925.

1. M. R. Ry. A. Vyasalu M. R. L. Ranger VII Grade, Assistant to Range Officer Gundlakamma will be relieved of his duties by Range Officer Gundlakamma on the afternoon of 31—3—25 and will report to District Forest Officer Kurnool West for survey of teak plantations. This cancels the posting of M. R. Ry. B. Kistna Rao M. R. H. Supernumerary Ranger in this office S. O. No. 39/25 dated 13—3—25 to Kurnool West Division.
2. M. R. Ry. B. Kristna Rao, M. R. H. Supernumerary Ranger on relief of Giddalore Range charge by M. R. Ry. Tatacharya is posted to be in charge of Kadiri Range, Anantapur District. He will relieve No. 3 not later than the 3rd April.

3. M. R. Ry. M. Krista Rao, Ranger III Grade in charge of Kadiri and Bukkapatnam Ranges will, on relief of Kadiri Range by No. 2, continue in charge of Bukkapatnam Range till the 20th April. He will then hand over to No. 2 who will hold additional charge of this Range temporarily till relief by No. 4.

M. R. Ry. M. Krista Rao on relief by No. 2 to take charge of Gudem Range, East Kurnool Division in relief No. 4.

4. M. R. Ry. A. Bavaiah, M. R. H. Ranger VI Grade on relief of Gudem Range by No. 3 to hold charge of Bukkapatnam Range, Anantapur District in relief No. 2 Supernumerary Ranger B. Krista Rao.

14-4-1925.

Mr. M. Hussain Khan, D.D.R., Ranger II Grade, on return from leave is posted to be in charge of Rachakonda Range, Kurnool East Division, subject to the production of the Medical Certificate of fitness to duty from the District Medical Officer, Kurnool.

18-4-1925.

M. R. Ry. K. Purushothama Rao, M. R. H., Ranger VI Grade, is granted an extension of leave on Medical Certificate for 2 months in continuation of the leave sanctioned to him in this office S. O. No. 15/1925 dated 24-1-25.

19-4-1925.

The posting of Mr. M. Hussain Khan Ranger II Grade to Ranchakonda Range, Kurnool East Division ordered in this office S. O. No. 461 as dated 14-4-1925 is held in abeyance until further orders. He will now forthwith relieve M. R. Ry. K. Tatacharya D. D. R. Ranger IV Grade of Giddalore, who is reported sick and recommended two months leave by District Medical Officer, Kurnool and be in charge temporarily of Giddalore Range till relief.

22-4-1925.

M. R. Ry. T. M. Krishnamachari M. R. H. Supernumerary Ranger Gudem Range, Kurnool East Division, is granted leave on average pay for two months from date of relief (8-8-25 A.N.).

27-4-1925.

M. R. Ry. K. R. Viswanatha Ayyar D. D. R. Ranger IV Grade, Badvel Range is granted leave on average pay for 2 months and 9 days from 15th May 1925.

B.T. Seetarama Ayyar V Grade Sub-protem Porumamilla Range, will hold additional charge of Badvel Range vice No. 1 on leave or until further orders.

28-4-1925.

M. R. Ry. K. Tatachari Ranger IV Grade, Giddalore Range, Kurnool South Division is granted leave on medical certificate on average pay for two months from the date of relief by No. (2)

2. Mr. Abdul Khalak Sheriff, Forester I Grade, Kurnool South Division, should relieve No. (1) forthwith and hold charge of Giddalore Range until further orders. This cancels the posting of Ranger Russain Khan to Giddalore.

8-5-1925.

M. R. Ry. N. C. Madhavan Pillai D. D. R. Ranger III Grade Kudligi and Harpanahalli Ranges Bellary Division is granted leave on average pay for three months on medical certificates from the forenoon of 12th April 1925.

2. The existing arrangements will continue.

14-5-1925.

The transfer of M. R. Ry. M. Krishna Rao Range Officer, Bukkapatnam to Gudem Range, Kurnool East Division is postponed till the 21st of June 1925, when he will be relieved by No. (2). He must join in Gudem Range *without fail* on 1st July forenoon.

2. M. R. Ry., A. Bhavia M. R. H. Range Officer Gudem on relief by No. (3) is granted leave on average pay. Subject to eligibility certificate from District Forest Officer, till the 21st June 1925.
3. Mr. A. H. Kirmanai Sahib Range Officer Markapur will hold charge of Gudem Range in addition to his own duties. To relieve No. (2) at once.

13—5—1925.

M. R. Ry. N. Rajagopala Chetty, M. R. H. Supernumerary Ranger on return from leave is attached to the District Forest Office, West Cuddapah, pending completion of the enquiry that is being held by the District Forest Officer Cuddapah West.

14—5—1925.

M. R. Ry. T. M. Krishnamachari M. R. L. Supernumerary Ranger Kurnool East Division is granted an extension of leave on average pay for one month in continuation of the leave already granted to him in this office Service Order No. 53 dated 22nd April 1925

21—5—1925.

M. R. Ry. K. Puroshotbama Rao, M. R. H. Ranger VI Grade on return from leave (2—6—25) is posted as assistant to the Range Officer Gundalakamma, Kurnool South Division.

29—5—1925.

M. R. Ry. O. Venkataramana Ayyar, Ranger I Grade from Cumbam Range of Kurnool East Division to Owk Range of Kurnool South Division.

M. R. Ry., R. Rama Rao, Ranger, IV Grade from Owk Range of Kurnool South Division to Cumbam Range of Kurnool East Division.

3. M. R. Ry., P. V. Krishna Rao Naidu, Ranger, VII Grade, Dhone Range to relieve No. 2 at once and to be in additional charge of Owk Range till his relief by No. 1.

29—5—1925.

1. M. R. Ry. L. Govindaswami Pillai Ranger V grade is granted an extension of leave for 3 months on half average pay on medical certificate from 1st May 1925 in continuation of the leave for 2 months granted to him in late III Circle Conservator's Service Order No. 254/17—7—24 99/8—12—24 & 18/28—2—25.
2. M. R. Ry. T. Krishnamachari Supernumerary Ranger on return from leave (8—6—25) is posted to the charge of Cuddapah Range of West Cuddapah Division.
3. M. R. Ry. H. Temmaya, M. R. H. Range Officer Vontimitta Range who is at present in additional charge of Cuddapah Range should hand over charge of Cuddapah Range to No (2).

31—5—1925.

M. R. Ry. K. Puroshotbama Rao, M. R. H. Ranger, VI Grade is reduced to the 6th place in the VII grade for a period of six months from the date of this order.

The extension of leave on Medical Certificate for 6 months granted to M. R. Ry. G. N. Subba Rao, Ranger Vth Grade in this office Service Order No. 23/25 dated 10th February 1925 will be leave on half average pay.

2. The leave of 3 months granted to him on loss of pay in this office Service Order No. 19/25 dated 22nd January 1925 is hereby cancelled.

4—6—1925.

1. M. R. Ry., S. Chinnadorai Pillai, M. R. Hons. Ranger II Grade,

xx.

Bairluty Range, Kurnool West Division is granted leave for 3 months (26 days privilege leave and 2 months and 4 days furlough on half pay) on Medical Certificate from date of relief by No. 2.

2. M. R. Ry. K. Purushothoma Rao, M. R. H. Ranger VII grade. Assistant Range Officer, Gundlakamma, Kurnool South Division is transferred to the charge of Bairluty Range vice No. 1 on leave or until further orders. To join *forthwith*.

6—6—1925.

M. R. Ry. T. T. Paramasivam Pillai M. R. H. Ranger V Grade transferred from the Forest Engineering Branch is posted to Kurnool South Division to charge of Cholama Range, to relieve M. R. Ry. R. Jagannatham Nayudu, who will remain attached to Kurnool South Division until he is relieved for work under the special Panchayet Officer Mr. Devadasan.

2. Mr. J. D. Theodore M. R. H. Ranger VI grade transferred from the Circle is posted to Sanipaya Range of Cuddapah West Division to relieve Mr. Riazuddin Extra Assistant Conservator who will resume his previous duties under the District Forest Officer.

12—6—1925.

- I. M. R. Ry. O. Venkataramana Ayyar, Ranger I grade Cumbum Kurnool East Division is granted leave on Medical Certificate for 4 months from date of relief.
2. M. R. Ry. B. Punnaya Ranger IV grade Donal Range, Kurnool East Division is transferred to Cumbum Range of the same division vice No. 1 on leave or until further orders.
3. Mr. Hussain Khan Ranger II grade Rachakonda Range Kurnool East Division is posted to additional charge Donal Range. To relieve No. 2 *forthwith*.

xxi.

4. This cancels the orders issued in this office Service Order No 75 dated 29th May 1925.

Third Circle.

5—3—1925.

M. R. Ry. T. Venkatasubbiah M. R. Hons. Range Officer, Rajampet is granted leave on average pay on medical certificate for 3½ months from 22nd February 1925.

M. R. Ry. A. Ranganayakulu Naidu will hold charge of both Kodur and Rajampet Ranges.

18—3—1925.

M. R. Ry. T. N. Seshagiri Rao, D. D. R. Ranger I grade in charge of Chingleput Range, is posted to Cuddapah Range of West Cuddapah Division on abolition of Chingleput Range, in relief of Ranger M. R. Ry. H. Thammayya, who is now in additional charge of Cuddapah Range.

26—3—1925.

M. R. Ry. B. V. Vaideeswara Ayyar, D. D. R. Range Officer, Kanigiri, Nellore District who was placed under suspension in this office Service Order No. 11-25 dated 13th February 1925 is reinstated with effect from date of rejoining duty.

The period of his absence from the date of suspension to the date of rejoining will be treated as leave on average pay.

3—4—1925.

M. R. Ry. N. Rajagopal Chetty M. R. H. Supernumerary Ranger attached to the District Forest Office West Cuddapah District is granted leave on average pay on Medical Certificate for 3 months with effect from 13th February 1925.

7-4-1925.

M. R. Ry. B. V. Vaideeswara Ayyar D. D. R. Ranger VI grade in charge of Kanigiri Range, Nellore District will be considered to have been on Privilege leave from 20th February 1925 to 30th March 1925 both days inclusive.

8-4-1925.

The lien of M. R. Ry. N. Swaminatha Ayyar, D. D. R. Ranger I Grade on leave for purposes of pay and allowances is transferred from Chingleput District to North Vellore District with effect from 1st April 1925.

18-4-1925.

M. R. Ry. T. N. Seshagiri Rao D. D. R. Ranger I grade in charge of Chingleput Range is granted leave for 1 year and 8 months (i. e., Privilege leave for 4 months, 4 months furlough on full average salary and 1 year ordinary furlough) from date of abolition of Chingleput Range ordered in this office Service Order No. 25-25 dated 18th March 1925.

M. R. Ry. L. Govindaswamy Pillai Ranger V grade on return from leave is posted to Cuddapah Range charge of West Cuddapah District in relief of Ranger M. R. Ry. H. Thammayya who is in additional charge of the Range.

21-4-1925

In modification of this office Service Order No. 21/25 dated 5th March 1925 M. R. Ry. T. Venkatasubbaya M. R. Hons Ranger V Grade is granted leave on average pay on Medical Certificate for 2½ months from 18th from March 1925.

Fourth Circle.

1-3-1925.

M. R. Ry. J. S. Vedanayakam, M. R. H. Supernumerary Ranger, West Vellore Division, is granted extension of leave on average

salary for 3 months in continuation of one month's leave granted to him by the District Forest officer in his Service Order No. 24 of 1925, dated 25-1-1925 and Service Order No. 26 of 1925, dated 4-2-1925.

6-4-1925

The period of casual leave availed by Ranger Mr. Muthuswami Ayyar, Ranger III grade from the 3rd to 11th February 1925 will be treated as leave on average pay without medical certificate at Rs. 175.

18-4-1925.

1. Ranger T. V. Govinda Rao, V grade on return from leave on 15-5-1915 and on production of medical certificates for fitness to return to duty, is posted to the charge of Tiruvannamalai Range, South Vellore Division.
2. Ranger M. R. Doraiswami Ayyar, M. R. H. V grade, now in charge of Tiruvannamalai Range, South Vellore Division, is transferred to Anchetti Range, North Salem Division on relief by No. 1.
3. Ranger P. Mathuramuthu Pillai D. D. R. sub-protem II grade, on return from leave on 13-5-1925, is posted to the charge of Shevaroy's South Range, Central Salem Division.
4. Supernumerary Ranger P. Perumal Gounder M. R. H. now in charge of Anchetti Range on relief by No. 2 will be attached to North Salem Division for special duty.
5. Supernumerary Ranger S. Nageswara Ayyar M. R. L. now in charge of Shevaroy's South Range on relief by No. 3, is posted for special duty under the District Forest Officer, Central Salem, until further orders.

20—5—1925.

Ranger Syed Yahia Sahib, M. R. H. V grade, Central Salem Division, is granted extension of leave without allowances on medical certificate for one month and 5 days in continuation of the leave granted to him.

21—5—1925.

M. R. Ry. T. V. Govinda Rao, Ranger V grade, is granted extension of leave on average salary on medical certificate for 4 months in continuation of the leave granted to him.

21—5—1925.

M. R. Ry., M. S. Krishnaswami Ayyar, M. R. H. Supernumerary Ranger, and Assistant Instructor, Vernacular Training School, North Salem Division, is promoted to temporary Ranger VII grade for the period of his duty as Assistant Instructor.

23—5—1925.

Paragraph 1 of this office Service Order No. 33-25, dated 11—4—1925, is cancelled.

M. R. Ry. S. Doraiswami Ayyar, Ranger IV grade, now in charge of Gingee Range, will relieve M. R. Ry. M. R. Doraiswami Ayyar, Ranger V grade, and hold charge of Tiruvannamalai Range in addition till the amalgamation of Gingee and Tiruvannamalai Range is sanctioned.

28—5—1925.

M. R. Ry. T. K. Parthasarathi Ayyangar, Ranger VI Grade, East Salem Division, is reduced permanently to the bottom of VII grade with effect from 28th May 1925.

2—6—1925.

M. R. Ry. M. Muthuswami Ayyar, Ranger, temporarily reduced to III grade in this office Proceedings No. 641-25-M., dated 23—5—1924 is restored to II grade from 1—6—1925.

12—6—1925.

M. R. Ry. T. K. Parthasarathi Ayyangar, Ranger VII grade is granted leave on average salary for 2 months from date of relief.

Fifth Circle.

6—3—1925.

The leave on average pay for four months from 26th October 1924 granted to M. R. Ry. T. Kondathu Goundan M. R. H. Ranger VI Grade, South Coimbatore, District Forest Officer's S. O. 175/1924 dated 13th October 1924 based on Conservator's C. No. 1638/5-10-1924 is extended by four months on medical certificate.

7—3—1925.

M. R. Ry. T. P. Palanikumara Pillai M. R. H. Ranger VI Grade, Kollegal, is granted leave on full average pay for three months from date of relief.

2. Mr. M. P. Philip, M. R. H. Supernumerary Ranger, Madura, is transferred to Bargur Range, Kollegal, to relieve No 1.

21—3—1925.

M. R. Ry. K. Anantharamier, M. R. L. Ranger VII Grade working under the Extra Assistant Conservator of Forests, Development Branch, Tinnevely, is granted leave on average pay on Medical Certificate for three months from 14th February 1925.

22—3—1925.

The leave on average pay for 2 months from 3rd January 1925 granted to M. R. Ry. K. Venkataramana Rao, M. R. H. Ranger IV Grade, South Coimbatore District is extended by six weeks on medical certificate.

22-3-1925.

Ranger K. O. Anandan M. R. L. is transferred from North Coimbatore to South Coimbatore for charge of Pollachi Range.

Mr. Sahni, Assistant Conservator of Forests in charge of Pollachi Range, on relief by Ranger K. O. Anandan will remain in South Coimbatore as an attached Officer with Head Quarters at Coimbatore.

Ranger K. Chaiku D. D. F. is transferred from South Coimbatore to North Coimbatore.

28-4-1925.

M. R. Ry. M. H. Krishnaswami Avl., Extra Assistant Conservator of Forests, in charge of Development Works, Tinnevely, will, after the completion of the Development works, remain attached to the Direction Office, at Coimbatore.

1-5-1925.

The leave on average pay for 2 months and six weeks granted to M. R. Ry. K. Venkataramanan, M. R. H. Ranger IV grade South Coimbatore is extended by 10 days without medical certificate.

2-5-1925.

In modification of this office S. O. No. 3 of 1925 M. R. Ry. A. P. Srinivasa Ayyengar, M. R. H. Ranger IV grade is granted leave under the old leave rules for 4 months and 12 days from 11-1-'25 to 22-5-'25 (Privilege leave for 2 months and 24 days and commuted furlough on full average pay for the balance)

4-5-1925.

M. R. Ry. K. Chaikku, D. D. R. Ranger VII Grade, South Coimbatore, is granted leave on average pay on medical certificate for 3 months from 28th March 1925.

9-5-1925.

M. R. Ry. V. Jaganatham Pillai, Ranger in charge of Sandal Depot. Satyamangalam North Coimbatore District is granted leave on average salary for 1 month from date of relief.

12-5-1925.

1. M. R. Ry. A. P. Srinivasa Ayyengar, M. R. H. Ranger IV Grade on return from leave is posted to Madura District for charge of Kodaikanal Range.
2. Mr. A. R. Manual, M. R. H. Supernumerary Ranger on relief by No. (1) will remain attached to Madura District for work in connection with sandal stock mapping.

2-6-1925.

M. R. Ry. C. P. Garudachela Mudaliar, Ranger II Grade, South Coimbatore, having been invalided from 11th March 1925 by the District Medical Officer, Chingleput that portion of the leave on half pay from 11-3-1925 to 20-10-1925 granted in S. O. No. 86/24 is hereby cancelled.

3-6-1925.

M. R. Ry. N. S. Eswaran, Ranger, North Coimbatore Division is restored to VI Grade from 1-6-1925

Sixth Circle.

17-3-1925.

Mr. B. Coates, M. R. H. Ranger, VI grade, is granted leave on average pay on medical certificate for 4 months, subject to a report from the District Forest Officer regarding the Ranger's eligibility for leave, from date of relief.

17-3-1925.

M. R. Ry. S. Chidambara Ayyar, Ranger, M. R. H. V grade, is granted leave on average pay on medical certificate for one month from date of relief.

2. M. R. Ry. M. S. Rangaswami, Avl., Probationary Extra Assistant Conservator is posted to the charge of the Mannarghat Range vice No. 1.

17-8-1925.

Ranger J. A. Aranha, D. D. R. who was granted 4 months leave in this office S.O. No. 86/24 dated 26th October 1924 and who is due back on 31st May 1925, is recalled to duty and posted to the charge of the Mangalore Range, North Mangalore Division. To join on 15th April 1925.

30-3-1925.

Mr. J. S. Rowland M. R. Hons. Ranger III grade, in charge of the Coondapur Range, North Mangalore Division, is appointed as Instructor Vernacular Training School to be held in the Wynaad Division.

2. M. R. Ry. P. Madhavan Nair, M. R. H. Supernumerary Ranger, Palghat Division, is appointed as Assistant Instructor.

8-4-1925.

1. M. R. Ry. A. Joseph, M. R. H. Ranger VI grade, on special duty, Nilambur to the charge of the Sigur Range, The Nilgiri Division To join expeditiously.
2. M. R. Ry. S. V. Duraiswami M. R. H. Ranger, VI grade, in charge of the Sigur Range, The Nilgiri Division, to the charge of the Coondapur Range, North Mangalore Division. To join not later than 20th April 1925.

16-4-1925.

1. M. R. Ry. P. A. Madhavan M. R. H. Supernumerary Ranger on special duty Wynaad, on return from leave, (about 15th May 1925) to the Nilambur Division for special duty.
2. M. R. Ry. M. V. Ganesan, M. R. H. Supernumerary Ranger, on special duty Nilambur, to the Wynaad Division for special duty vice No. 1 To join on relief.

5-5-1925.

In continuation of this office S. O. No. 1/25 dated 3-1-1925 Ranger Nicholas M. R. H. is granted an extension of leave on medical certificate, on half average pay for six months from 9th April 1925,

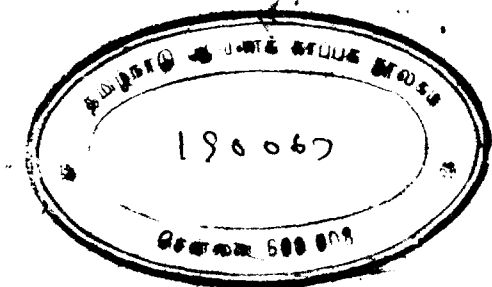
Ranger W. S. Fernandez, IV grade, is granted leave on average pay on medical certificate for 2 months from 1st May 1925.

6-6-1925.

Mr. A. B. Fenn. Ranger V grade, transferred to this Circle from the Engineering Branch in Chief Conservator's L. Dis. No. 2305/25 dated 30th May 1925 is posted to the charge of the Beltangadi Range in the South Mangalore Division vice Ranger I John, VII grade, transferred to the I Circle in Chief Conservator's L. Dis. No. 2305/25 dated 30th May 1925.

10-6-1925.

1. Mr. J. D. Theodore, Ranger VI grade from the I Circle to the II Circle.
2. Mr. I. John, Ranger VII grade from the VI Circle to the I Circle vice No. 1.



N 25

Advertisement Rates.

The Magazine is expected to have a wide circulation among Forest Officers in the Madras Presidency. Such articles as are useful to them as camp equipments, books, mechanical appliances, transporting gear etc., etc., can be advertised with advantage through this medium.

The following is the Schedule of rates.

	Single Insertion	Per annum.
For full page	Rs. 6.	Rs. 12.
Half page	" 4.	" 8.
Quarter page	" 2 as. 8.	" 5.

Preparation of blocks unless supplied by the advertiser charged extra.

Charges are payable in advance; the advertisements are subject to the approval of the working committee before insertion.

All business communications should be addressed to:

THE BUSINESS SUPERINTENDENT M. F. C. MAGAZINE
*Madras Forest College, Lawley Road, P. O.,
Coimbatore.*

Literary communications should be addressed to:

THE EDITOR, M. F. C. MAGAZINE,
*Madras Forest College, Lawley Road, P. O.,
Coimbatore.*

All remittances may be made to:

THE TREASURER, M. F. C. MAGAZINE,
*Madras Forest College, Lawley Road P. O.
Coimbatore.*

The Madras Forest College Magazine.

Published Quarterly.

Subscriptions.

Subscription per annum Rs. 2/- and an entrance donation of Rs. 2/- for students of the College.

Rangers, Foresters etc., same terms as students. Assistant and Extra Assistant Conservators—Entrance donation of Rs. 5/- and an annual subscription of Rs. 2/-.

Other Officers—Entrance donation of Rs. 10/- and an annual subscription of Rs. 2/-.

The *September* Number being the *first* issue of every volume, or year, of the Magazine, will be sent by V. P. P. for Rs. 2—2—0, the payment covering all four issues of the year and the Registration fee for the V. P. P.

It is not intended that the Magazine should be run at a profit so that as our subscribers increase the magazine will be issued in a more attractive form.

It is the aim of the Management to run the Magazine for the Ranger-class (including Foresters) and mainly by their contributions. Correspondents are needed to supply suitable matter to maintain the magazine on these lines. We feel confident that this appeal will not go in vain. There must be a number of our readers who have something of interest to write on.

Subscribers are requested to inform the editor of all changes of address.

Obtainable from the Business Superintendent.

Madras Forest College Magazine,

Lawley Road, P. O., Coimbatore.

SOUTH INDIA