

THE RECRUITMENT OF ~~THE~~ INDIAN FOREST SERVICE

ON the 24th of February it was announced that Mr. Morley had appointed a Committee 'to enquire into and report upon the present system of selecting, and of training after selection, candidates for the Indian Forest Service, and to make recommendations.'

Though small in number, this is a strong Committee. Its chairman, Mr. Munro-Ferguson, M.P., was also chairman of the Departmental Committee on British Forestry in 1902; and the other four members are Sir John Edge, formerly Chief Justice at Allahabad and now senior member of the India Council; Sir William Thiselton-Dyer, for many years Director at Kew; Mr. Stafford Howard, Senior Commissioner of Woods and Forests; and Mr. Eardley-Wilmot, Inspector-General of Forests in India. Mr. Wilmot has been sent home to represent the Government of India, which is, of course, specially interested in having this important question settled in a manner more satisfactory to it than recent and present arrangements for the selection and training of probationers seem to be.

Mr. Morley is to be congratulated on nominating a Committee likely to formulate an unprejudiced and common-sense opinion on the evidence submitted to its consideration. And its report may perhaps contribute towards the realisation of Mr. Morley's hope, when, on the 20th of July 1906, speaking of the 250,000 square miles of State forests, in the revenue from which there had been in the preceding five years an increase of over 600,000*l.*, he said, 'I cannot wonder that those who are concerned in these operations look forward with nothing short of exultation to the day when this country will realise what a splendid asset is now being built up in India in connection with these forests.' Whether this 'splendid asset' will continue to be developed on the best lines must necessarily depend in no small degree on the recommendations made by this Committee with regard to the selection and training of the men into whose hands will, in due course, be entrusted the administration of that vast capital in land and timber represented by these State forests. Hence the importance of the liberty 'to make recommendations' regarding

selection; and the Committee may perhaps first of all have to consider if the present conditions of service, and more especially the prospective amount of pension obtainable as contrasted with the pensions sanctioned for the other Indian Services, are such as seem likely to secure the best class of candidates that can be expected to offer themselves under the inducements held out by the Government of India.

As was pointed out in an article on 'The Forests of India and their Administration' in this Review for February 1907 (page 278), after the formation of the Indian Forest Department in 1864, the first Inspector-General, the late Dr. (Sir Dietrich) Brandis, soon found that a body of well-trained officers was absolutely necessary in order to develop departmental organisation properly. At first the Department was recruited by appointing military officers and others who seemed fond of shooting, or botany, or rough camp life, or who showed aptitude for carrying out the simple surveys for enumerating and classifying the stock of valuable marketable timber in the forests. But in 1866, after long correspondence, the Government of India and the Secretary of State agreed to proposals for a regular recruitment of the Department by securing young trained officers. To supply urgent immediate requirements, however, two young German foresters were appointed, under specially favourable terms. These were Dr. W. Schlich and Mr. B. Ribbentrop, who both later became Inspectors-General (from 1882 to 1885, and 1885 to 1900). A system of competitive examination for probationerships being instituted, the first examination was held in November 1866, and the selected candidates were trained for two and a half years from the following March onwards, partly in Germany and partly at the French National School of Forestry in Nancy. At the end of their training the probationers were appointed as assistant conservators on a salary of 250 rupees per mensem (then stated to be equal to 300*l.* a year), and with a prospective pension of 500*l.* according to the prospectus issued. This Continental training ceased in Germany in 1875, and in France in 1886, ninety-seven trained officers being thus appointed between 1869 and 1886, after competitive examinations held from 1866 to 1883.

Meanwhile, Coopers Hill College had been opened in 1871 to train recruits for the Public Works Department. But with the fall in the rupee and the shrinkage in funds available for new works in India, a large reduction of establishment took place in 1879, and the number of recruits wanted was then insufficient to maintain the College without a larger Government subvention than formerly. To decrease the annual deficit, and partly also for other reasons, a new system of training for forest probationers was therefore introduced in October 1885, the selected candidates of that year being sent to Coopers Hill for two years, and then spending about three months in certain forest

districts in Britain and Germany. In 1888 Sir Dietrich Brandis was appointed Director of the Practical Study of Forestry, and conducted the German tour. From 1890 onwards the training was extended from twenty-four to thirty-four months, and consisted in a two years' course of forestry instruction given under Dr. Schlich (who retired with a full pension and a bonus of 20,000 rupees from the inspector-generalship on the 1st of January 1889) as professor of sylviculture and forest management, with Mr. W. R. Fisher (who retired from a conservatorship) as assistant professor of forest protection and utilisation. First year students made a short tour in Normandy, but the long German tour in the last half-year was still personally conducted by Sir Dietrich Brandis. Thus modern French and German (but chiefly German) forestry was taught by two retired Indian forest officers, while special lecturers provided instruction in botany, zoology, and the chemistry of soil and plant, and the forest probationers shared with the engineering students the courses in physics, surveying, &c.

These arrangements were subsequently altered, the course in forestry and the cognate sciences still consisting of two years spent at Coopers Hill, with an extensive tour in French forests during the first year of study, but in the third or last year the probationers were placed in small groups under head foresters in Germany, to gain an insight into the practical work, and to see the results of methodical management on a far larger scale and in a much more scientific and thorough manner than can as yet be seen anywhere in Britain. This system of training at Coopers Hill lasted from 1885 to 1905, and furnished 152 probationers, making in all 249 young, scientifically trained British officers who were appointed to the Forest Service between 1869 and 1906.

As ample provisions now exist in British Universities for training civil engineers and granting degrees in engineering, the question of maintaining Coopers Hill had more than once been considered by the Indian Council. After a thorough inquiry in 1903 a special committee urged the abolition of the College; and early in 1904 the Secretary of State announced its closure in July 1905. Since then the Public Works Department has been easily and satisfactorily recruited by the selection of well-qualified candidates who have gone through a full theoretical and practical course of British engineering. But the question of training Indian forest probationers still remained undecided. As there is no national school of forestry in Britain, it was asserted that India's special requirements would best be met by transferring the two forestry professors, Dr. Schlich and Mr. Fisher, to some University centre offering good opportunity of providing instruction in the cognate sciences. The most likely centres for such a purpose were the Universities of Oxford, Cambridge, and Edinburgh; but the issue soon lay between the two great residential

English Universities, whose Boards of Indian studies train the majority of the Indian Civil Service probationers selected at the competitive examination held annually under the Act of Parliament of 1858. Oxford and Cambridge therefore became rivals to secure the training of the forest probationers. In many respects Cambridge offered really the greatest advantages, but upon Dr. Schlich's advice the Secretary of State's preference was given to Oxford. So Messrs. Schlich and Fisher were moved to Oxford from October 1905 onwards, the curriculum being the same as finally at Coopers Hill—namely, a two years' collegiate course including a tour in France, followed by one year spent mainly in practical work under a German forester, and terminating in an extensive tour throughout German and Swiss forests.

On this decision favouring Oxford being announced early in 1905, Cambridge protested against the invidious distinction thus made in sending the forest probationers to its ancient rival, because this was equivalent to an official grant of 1200*l.* a year, as the professorial salaries paid by the Government of India to Messrs. Schlich and Fisher are respectively 700*l.* and 500*l.* a year. Mr. S. Butcher, M.P. for Cambridge, moved in the matter, and the Earl of Lytton, on the 7th of March 1905, asked a question in the House of Lords, to which the Marquis of Bath, Under-Secretary of State, replied officially (see *Times* and Hansard) to the effect that

there was a good deal of misapprehension both as to the scheme and the results which would ensue from it. *He particularly emphasised the fact that the scheme was, and was intended to be, only of a temporary nature.* In coming to his decision, the Secretary of State was guided by very strong representations made to him by the experts whom he consulted, who stated that the number of men engaged in studying forestry was very small, only ten a year. It was considered most necessary that the probationers should continue to be educated all in one residential University, where rooms and supervision were provided for the students, where they could come into contact with their contemporaries studying for other walks of life, and where the forestry students should obtain the benefit of instruction in the cognate sciences and have the opportunity of obtaining University degrees or diplomas. The choice of a residential University not too far from London naturally lay between Oxford and Cambridge. When attention was first directed to the matter, in 1903, Cambridge was thought to be the most suitable place.* But it was urged that, with respect to woods, Oxford was far more favourably situated than Cambridge, and in selecting Oxford, no idea of preferring one University to the other entered the mind of the India Office authorities. The competition would be just the same as it had been for Coopers Hill, after an examination carried out by the Civil Service Commissioners. What the India Office required was that the students should receive a University training for two years, and spend the last year of their course in Germany. *But he desired again to emphasise the fact that this was merely a temporary measure.* Indian money would not be spent upon a permanent establishment at Oxford or elsewhere until the matter had been fully considered in the light of experience and of the best expert opinion. To meet the objections felt to the scheme, he undertook that an inquiry, which should include outside authorities, would be held before the close of the three years, to consider and report upon the

experiment. And, if it should be thought desirable, the India Office were prepared to reduce the proposed experimental term from five years to three years, which was the lowest period that could be adopted with advantage to the experiment.

This official offer to limit, if considered desirable, the Oxford experiment to three years, *i.e.* till 1908, is not likely to be adhered to, because the contracts existing between the Secretary of State and Messrs. Schlich and Fisher (originally made in 1889, and renewed from time to time for definite periods) do not lapse till 1910; hence no change of any kind is likely to be made till then. But, since Lord Bath made his statement in March 1905, the number of Indian forest probationers is much more than '*very small—only ten a year*'—for in 1906 *nineteen* Indian forest appointments were advertised, and in 1907 *eighteen*, and for 1908 '*at least sixteen*' are advertised. Including the Ceylon and other colonial students, the forest probationers selected in 1905 and 1906 and studying at Oxford numbered about fifty in 1906-7. However, in any case, the promise about reconsidering the subject in the spring of 1908 has been fully redeemed by Mr. Morley in appointing his Committee, and it will now rest with them to ask for all the expert opinions they may wish to receive in order to enable them to discharge their important duty in making recommendations for future selection and training. And what is also important is that fair opportunity has now been given to the Government of India of expressing its views on the subject; for the transference of Messrs. Schlich and Fisher from Coopers Hill to Oxford is said to have taken place without the Government of India, which pays the salaries, having been consulted, or having even been asked if it would not like to suggest any alteration in the course of study marked out for those selected as probationers.

After the competitive examination of 1905 the two years' collegiate course for probationers began at Oxford in October. It included the usual four branches of theoretical and practical forestry, and, as auxiliary subjects, organic and soil chemistry, geology, elementary zoology and forest entomology, forest botany, geometrical drawing, plane trigonometry and surveying, German, elementary engineering, and bookkeeping and Indian Forest accounts. *It was specially desired that probationers should take a degree in the honour school of natural science before undergoing their last year of study in the German forests*, at the end of which time approved students were to receive a University diploma of forestry. And almost simultaneously, on the 4th of October 1905, a prospectus notified that a competitive examination would be held in August 1906 for ten (subsequently increased to nineteen) probationerships, the subjects of examination being merely '*the elements of mechanics, physics, chemistry and botany, with a qualifying examination in German.*' But as the date for this examination approached it was found that, for the first time

since the institution of competition in 1866, there was a lack of candidates. For the nineteen appointments offered only three candidates, it is said, were willing to present themselves for examination. So advertisements were hastily published in September 1906, announcing the bestowal of appointments 'by selection' in place of by competition; and all that was now asked for was '*a knowledge of chemistry, and of physics and mechanics. A knowledge of botany and German will not be insisted on.*' This was surely a fearfully low matriculation standard for prospective honours men at any University; but apparently Oxford was so anxious to have these fifty or more students as tacitly to acquiesce in this degradation.

The next announcement was made in February 1907, regarding the appointment of eighteen probationers in August. The idea of competitive examination was then completely abandoned, and twenty-one probationers were chosen 'on the advice of a selection committee' for the forest services of India and Ceylon. This selection committee consisted of Sir Philip Hutchins, member of the Indian Council; Sir Thomas Holderness, Revenue Secretary at the India Office; and Dr. Schlich. And in September 1907 it was announced that a similar procedure will be adopted for the selection of '*at least sixteen probationers*' in the summer of 1908, and also that these will likewise have to go through a two years' theoretical course at Oxford and one year of practical work and touring in German forests. But the standard required under this selection system is far lower than formerly obtained under competition, and especially from thirty to forty years ago, when it was understood that a rupee meant two shillings, and that the ordinary pension every officer might expect was 500*l.* For example, when I passed in 1872, four appointments were advertised and over fifty candidates competed for them; and now that the rupee is worth only sixteen pence, it is very unlikely that mere selection will furnish as energetic a set of officers as were obtainable under the old system of competition. Candidates now offering themselves for selection, however, need only give *prima facie* evidence showing that *they must possess a good general education, and, if possible, a knowledge of chemistry, and of mechanics and physics*'—which still seems a low matriculation test for prospective honours men at Oxford.

There is only one explanation for the sudden abstention from the competition in 1906, although the standard demanded was lower than it used to be; and this is that the salaries and the pension offered were insufficient inducements for the expensive three years' probationary course of training. And the unsatisfactory pensionary provisions must be taken to be the main reason, because this new and marked abstention was manifested immediately after a reorganisation of the Forest Service early in 1906, whereby a substantial increase was made in the salaries sanctioned for an establishment that was ultimately

increased on the 6th of January 1907 to 245 officers.¹ The insufficient pension is therefore chiefly to blame. And certainly, in the matter of pension, the Forest Department has been shabbily treated.

But the question of forest pensions can perhaps only be considered fairly when its past history is taken into account. In 1874 the heads of the Forest, Public Works, and Telegraph Departments submitted for approval a joint scheme for improving the pensions and providing widows' annuities. This long remained pigeon-holed; but when financial pressure came in 1879, Government intimated that a favourable reply could not then be given. It was understood, however, that later on reconsideration would take place if the finances of India justified it. After joint action had been again unsuccessfully taken in 1882, the Public Works and Telegraph Departments in 1883 pressed their claims, and in April 1884 obtained the grant of extra pensions of 1000 rupees for all Superintending Engineers and Superintendents of Telegraphs, and of 2000 rupees for all Chief Engineers and the Director-General of Telegraphs; while the Forest Department, whose officers relied on the assurance given by Government rather than join in that agitation, was subsequently, in 1890, granted this boon merely partially, an extra pension of 1000 rupees being sanctioned only for the Inspector-General and the six Conservators of the first grade (out of a total of nineteen Conservators in India). Thus, for their loyalty and good faith the forest officers have suffered severely instead of being generously dealt with. There are still only nine such extra pensions of 1000 rupees sanctioned for the whole of the 245 officers, *i.e.* hardly one in every twenty-seven officers can ever hope to secure the extra pension; but even of these nine, two are only temporarily sanctioned for five years from 1906 (for the two Chief Conservators in Burma and the Central Provinces), thus leaving only seven permanent extra pensions actually secured to the Department, or only one extra pension for every thirty-five officers.

¹ Establishment sanctioned on January 6, 1907:—

	Rupees
1 Inspector-General	monthly salary 2650
2 Chief Conservators (Burma and Central Provinces —temporarily for 5 years)	2150
19 Conservators	{ 6 of I Grade 1900
	{ 7 of II " 1700
	{ 6 of III " 1500
136 Deputy Conservators	Commencing with a salary of Rs. 380 a month, rising by annual increments of Rs. 40 a month to Rs. 700, and after that by increments of Rs. 50 a month to Rs. 1250 in the twentieth year of service.
72 Assistant Conservators	
9 Foreign Service Appointments (4 temporary)	
1 Assistant Inspector-General	
5 Officers at Imperial Forest College and Research Institute, Dehra Dun (who each draw in addition a special allowance of Rs. 150 a month)	

Total 245 Officers.

Considering the responsibilities resting on these administrative forest officers, it seems only fair (1) that all the nineteen Conservators, of whatever grade and whether substantive or merely officiating, should, like all the similar officers in the Public Works and Telegraph Departments, be allowed the extra pension of 1000 rupees per annum, now only granted to Conservators who have served for three years in the first grade; and (2) that a further extra pension of another 1000 rupees a year should be sanctioned for the Inspector-General of Forests after three years' approved service, on the same conditions as sanctioned for all Chief Engineers of Public Works and for the Director-General and the Deputy Director-General of Telegraphs.

The arbitrary pensionary distinction drawn between the Conservators of the first grade and those of the second and third grades is unjustifiable. Promotion is now mainly by seniority, and it is quite a matter of chance as to which Conservators happen to reach the first grade and thereby attain the extra pension of 1000 rupees. Yet it very frequently happens that the heaviest responsibilities and the most important work fall to Conservators of the second and third grades, for whom this extra pension has not yet been sanctioned.

The injustice thus done to Conservators of Forests of the second and third grades has been recently intensified by the granting of extra pensions to Deputy Inspectors-General of Police, who occupy a lower official status than Conservators of Forests. And this injustice is all the greater, seeing that until quite recently no police officers were appointed from home, and that even now they have not to undergo any expensive training before going to India. For forest officers the cost of the three years' special course comes to between 800*l.* and 1000*l.*; and during these three years the young police officer draws a total salary of at least 10,800 rupees; so, on joining in India, the forester is worse off than the policeman by from 1500*l.* to 1700*l.* In equity, therefore, the forest officer would seem to have a far stronger claim to extra pension than the police officer; and yet the Secretary of State granted this extra pension to the Police Department after having previously refused it to the Forest Department and forbidden the Government of India to resubmit any further recommendation on behalf of the forest officers. And during the forest probationer's three years of training the young police officer has not only been earning salary, but also puts in three years of active service counting towards pension, and thereby earns nine months of furlough on half pay as well as three months of privilege leave on full pay. To the honour of the present Government of India, however, this unjust veto is now being ignored, and it is hoped that the renewed proposals coming before the Indian Council will receive the Secretary of State's approval. After Mr. Morley's striking eulogy of the Forest Department in his Budget speech of the 20th of July 1906, he cannot, without appearing strangely inconsistent, refuse to give

favourable consideration to what the Government of India are again urging as reasonable pensionary concessions.

As previously remarked, it can only be after the conclusion of the present contracts with Messrs. Schlich and Fisher, in 1910, that the results of the Secretary of State's acceptance of any or all of the recommendations that may be made by his Committee can be expected to take effect. But it is to be hoped that the Committee will take due measures to ensure obtaining a proper amount of independent and unprejudiced evidence, and that it will not rely solely or chiefly on the opinions of the 'experts' upon whose advice—the Secretary of State transferred the probationary instruction from Coopers Hill to Oxford in 1905. This is all the more necessary seeing that the chief expert, Dr. Schlich, is not in a position to form, and cannot possibly form, any unbiassed opinion on matters so closely concerning his own personal employment and position and the special educational work in which he has been engaged since 1885. Since then he has never revisited India to have any proper opportunity of knowing the results of the Coopers Hill system of training, now continued at Oxford, and of ascertaining whether this still suits the Indian requirements at a time when there is a far more highly organised system of work than obtained when he left India in 1885.

While giving a fair and just appreciation to Dr. Schlich's work in educating the forest probationers during more than twenty-two years—a difficult, but an interesting and well-paid employment—it is no disparagement to suggest that the opinions of other Indian forest officers who have occupied or now occupy high administrative positions are also worthy of consideration, for these men know best what are the defects of the recent and the present training, and what changes seem necessary in the interests of practical work. And certainly there is strong feeling in India that an improved course of training is very desirable, as the following extract from the *Indian Forester* for September 1906 (p. 449) shows :

Should the opinion of almost any conservator be asked, he will tell you that, although the old Nancy and Coopers Hill men of the earlier years turned out as a general rule excellent practical officers, there has been a marked falling off of late years (though naturally there are brilliant individual exceptions); and if the course of instruction at Oxford is what has lately obtained at Coopers Hill, the close observer will find ample cause for grave doubt as to whether the results will prove satisfactory. It is evident that if we are not obtaining the men we require, and there is little doubt about this, the cause must be that the stamp of man coming forward leaves much to be desired, or that the method of training as judged by the results is largely capable of improvement. If the right stamp of man will not come forward, surely Dr. Schlich must, unless he has lost all touch with India, also recognise the fact, and, while doing so, must see that it is his duty to point this out to the Government at home and advocate radical improvements in the pay and prospects of the service and in this way co-operate with the Government of India. If, on the other hand, the method of training is a barrier to our obtaining the men we require, the course at Oxford should be

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abolished, or at least new blood should be infused into that portion of the teaching staff responsible for the education in the forestry subjects.

Of recent years much has been done in Britain in the way of teaching forestry, although we have not many large woodlands. It has been taught at Edinburgh University since 1889, and at the Armstrong (Newcastle) and Bangor Colleges since 1904; and it is now being taught at Cambridge University since October 1907. Edinburgh, Newcastle, and Bangor give the degree of B.Sc. in forestry, and Cambridge confers a diploma of forestry, each of these academic hall-marks being only bestowed after a year's practical course, in addition to the theoretical teaching. Also, at most agricultural colleges (Cirencester, Downton, Aspatria, Wye, and elsewhere) forestry now forms a special branch of the instruction provided for students of estate management. And though none of these courses is so extensive and thorough as that now provided by the Government of India at Oxford (which also grants a diploma of forestry since 1907), yet they at any rate give a fair grounding in the scientific principles underlying every rational system of forestry, and they also provide good specialised instruction in the cognate sciences.

In trying to ascertain the best system of selecting and training probationers, it must be clearly understood that *Indian forestry is mainly estate management on a very extensive scale*. The success hitherto obtained has been mainly by conservators and deputy conservators endowed with good business instincts and full of energy, for indeed few of them (and these not the best) have been possessed of any really deep scientific knowledge. The Indian forester is far more of an accountant and a general revenue officer than anything else; and the Continental forestry he has been taught in Europe is in many respects inapplicable to the great stretches of woodland committed to his charge. His early impressions of Indian forestry must often, indeed, seem altogether opposed to the first principles he has been taught in Europe. At Coopers Hill, and now at Oxford, German forestry has principally been studied. British forestry—the copse method of growing standard trees, as prescribed by the 'Statute of Woods' (1543) and subsequent Acts—practically became a lost art soon after the introduction and the rapid development of steam-communication by land and water, and of iron ship-building. As there is only one really large block of woodlands in Britain, the Forest of Dean, now (since 1897) being managed under a regular working plan, so also there is but little modern forestry practised extensively in Britain. Hence, if one wishes to study European forestry it must therefore be either French or German forestry, or both; and when Sir Dietrich Brandis and Dr. Schlich organised forestry instruction at Coopers Hill in 1885, it was quite natural that they, being Germans, would take a German system as their model. And certainly no one can deny that Germany holds the lead in forest science. But German

forestry is very far from being a definite or homogeneous system. Each German State has its own method of management, adapted to its local conditions; and these local conditions differ so widely that in no two States can any one system of management be found any more than one and the same method of forestry can be applied to the different provinces in our Indian Empire, differing as these do in woodland flora, climate, local conditions, and special desiderata. And besides that, European and Indian forestry necessarily differ vastly. In every practical detail Indian forestry, varying in all the provinces and embracing vast areas that can only be treated extensively, differs almost entirely from European forestry dealing with relatively small areas under intensive treatment. In France, for example, there are thirty-two Conservatorships, and 236 divisions; and the total area of State, Communal or Corporation forests under the charge of the Department of Woods and Waters amounts to 7,787,000 acres, giving an average of about 380 square miles for each Conservatorship, and fifty-one and a half square miles for each division. In India, however, over its superficies exceeding 1,000,000 square miles, there are about 250,000 square miles of State forests (reserves 100,000 square miles, and protected or unclassed forests 150,000 square miles), divided into nineteen Conservatorships, and about 130 divisions. The average area of *actual forest* in each Conservator's charge thus exceeds 12,500 square miles, and each divisional officer has charge of about 2000 square miles on the average. But the *actual territorial area* included within each Conservatorship averages above 57,000 square miles, which is over 3400 square miles larger than all England and Wales, while each divisional officer's charge averages 8000 square miles, and is just about thrice as large as Wales. It is therefore easy to understand that although the fundamental principles of forestry are the same both in Europe and in India, yet the differences must in many important respects be just as vast as they are with regard to the territorial and the actual forest areas committed to the care and management of forest officers.

The differences between Indian and European forestry thus arising from physical and financial causes have raised the suggestion that it would be of great advantage if at any rate the practical portion of the training of probationers could in future be given at the Imperial Forest College at Dehra Dun, near the foot of the Himalayas.¹ This

¹ The Forest School originally founded at Dehra Dun, N.W.P., in 1878, for training subordinates (rangers and foresters) for the various provincial services, was in June 1906 transformed into an Imperial Forest College and Research Institute where scientific research and technical instruction are combined. The lectures are now given in English, the lower vernacular classes for foresters being abolished, and each of the six research officers gives a course of lectures in his own special branch. This does not interfere with research work, as the lecture session is confined to the four rainy months (July to October), when all the officers are at headquarters. For the vernacular teaching of the lower subordinates (foresters and forest guards) the

opinion is, indeed, shared by many of the present Conservators, men of common sense, who think that the recent Coopers Hill training was not, and the Oxford course is not, what is wanted—although naturally these are opinions which do not commend themselves to Dr. Schlich.

But it seems inadvisable that any prolonged training at Dehra of Europeans for the higher executive and administrative positions should be seriously considered. The course of instruction there is the best that the Department can offer; and, without stultifying itself, it could not pretend to arrange any better course for European probationers from home than is now given to the Eurasian and native students. Hence, to arrange separate classes and courses would be mere waste of energy, while to form mixed classes would be inadvisable for social reasons. And, even if separate courses could be arranged, it is extremely undesirable that the future officers of the higher (Imperial) and the lower (Provincial) services, who are afterwards to occupy entirely different positions as superiors and subordinates, should come into contact at all until their respective courses of instruction are completed and they meet as officers in active service with well-defined positions. But, on the other hand, it is most desirable that forest probationers should, if possible, be brought early into close touch with the Civil Service probationers along with whom they will afterwards serve in India; and this can only be arranged for at Oxford and Cambridge, at each of which Universities there is a special Board for Indian studies dealing with the majority of the competition-wallahs.

With Continental forestry now taught at several Universities and at most agricultural colleges, the Forest Department could, however, quite as satisfactorily and easily be recruited with fairly well-equipped students of estate and woodland management as is found to be the case in recruiting the Public Works, Educational and other scientific departments under a system of selection from among properly qualified candidates. But it seems desirable, from more than one point of view, that forest probationers should be selected by a competitive examination held by the Civil Service Commissioners in forestry and the cognate sciences, and should then be given one year's specialised training in Indian forestry, vernacular languages, and one branch of science at Oxford and Cambridge, combined with extensive tours in forests specially instructive from the Indian point of view. And such examination and training should supply not only the Indian forest requirements, but also all our growing Colonial

various local governments are now making the necessary provision in the form of local Forest Training Schools. The researches that can now be undertaken at the Research Institute and College will differ considerably from those questions with which the various European experimental stations are concerned, for the special problems requiring solution are of entirely different nature in the temperate and in the tropical zones.

needs. It is scandalous that young Germans should recently have been appointed to our Colonial Forest Service under cover of the official statement that suitable young British subjects could not be obtained. The Malay States, Ceylon, Cape Colony, Natal, Nigeria, the Gold Coast, the East African Protectorate, Egypt and Cyprus, now all need forest officers. And it can only be a question of time before Canada, Australia and New Zealand must also introduce some rational system of forest conservation. They will then require a large number of men; and all our Colonial forestry must be based on the Indian system, not on European models.

A competitive examination in the four main branches of forestry and in the cognate sciences (geology, chemistry, botany, zoology, and elementary engineering), with French and German conversation as optional subjects, and open only to young men of twenty to twenty-three years who have obtained a degree or diploma of forestry in Britain, would most probably secure the best men who, after having gone through a University or other collegiate course with a view to adopting the profession of land agency or estate management, can be attracted to the Indian Forest Service by the pay and pension it offers.

And if, as is the case, Civil Service probationers can be properly trained in Indian history, Indian civil and criminal law and procedure, political economy, and vernacular languages in twelve months, then such forest probationers as the above system would furnish could equally well be trained in Indian forestry (including Indian forest law, and departmental procedure and accounts), vernacular languages, and one branch of science (botany, zoology, geology, or chemistry, according to individual option), during the same time and at the same places, Oxford and Cambridge. It is absurd to suppose that a longer and more expensive special training is necessary for the Indian forester than for the much better paid Indian civilian, whose duties are more manifold and far more responsible. Hence the training of probationers selected by means of a competitive examination in forestry and the cognate sciences need also not exceed twelve months. It should be specialised to meet Indian requirements as far as possible, and should be given both at Oxford and at Cambridge. This might easily be arranged, through the Boards of Indian studies without further cost to the Government of India than the 1200*l.* at present spent in the training of forestry students at Oxford; for one professor of Indian Forestry (nominated also to act as chief adviser to the India Office) could be appointed at Oxford on 650*l.* a year, and another at Cambridge on 550*l.* a year. The probationers should be previously assigned to provinces, like the civilians, and the specialised course should include (1) *Indian Forestry* (history of forest department; silviculture, management, protection, and utilisation, as practised in the various provinces of India; Indian Forest Code of procedure,

office work, and accounts ; Indian Forest Acts, rules and regulations) ; (2) *Vernacular Languages*, Hindustani (elementary and colloquial for all probationers), and the chief vernacular language of the province to which the probationer is assigned (including a more advanced study where Hindustani alone is prescribed) ; and (3) one *cognate science* (either botany, zoology, chemistry of soil and plant, or physical geography and meteorology, according to individual choice).

Selected candidates passing this examination and being otherwise favourably reported on should be appointed to the Indian Forest Service, and should receive (like the Civil Service probationers) a grant of 150*l.* for the year of probation, with passage money of 37*l.* 10*s.* to Bombay, Madras, or Calcutta, and 43*l.* to Rangoon. And seniority in the service should be given according to the results of this final examination.

During the Easter vacation at the University the probationers should make a tour in the Alpes Maritimes, the Pyrenees, and Gascony ; and after the final examination in June, selected candidates should visit the Vosges, the Black Forest, Bavaria, and Switzerland, these being undoubtedly the European woodlands most instructive to the Indian forester. And if the young officers could, immediately on arriving in India, be taken for an extensive tour in some of the Himalayan and the lower forests, this would certainly be a very useful introduction to practical work in India ; for it would accustom them to camp life, and bring them into touch with their new surroundings under the most favourable circumstances. Even if such a tour only lasted for about five or six weeks, say from the 15th of November till Christmas, it would prepare the young officers for entering on their duties in the new year with a far better introductory knowledge of them than was ever enjoyed by their predecessors, the men who have during these last forty years made the Forest Department a well-organised, efficient, and very profitable branch of our Indian Administration.

J. NISBET.