

- (1) Apparent growth rings visible on cross section, vessel lines plainly visible on longitudinal surfaces. **Mangeao.**
- (2) No apparent growth rings visible to unaided eye. Structure close and tough, inclined to wavy grain. Vessel lines not easily visible. **Hinau.**
- (c) Woods with distinct reddish tinge.
- (i) Growth rings distinctly visible.
- (1) Rays very prominent **English Beech.**
- (2) Rays fine.
- (i) Wood light red or white with distinct reddish flush, quite hard and even textured. **Birch (alba)**
(**English or American**).
- (ii) Woods distinctly red or red-brown. **N.Z. Beeches.**
- ii. Growth rings not distinct.
- (i) Parenchyma prominent to unaided eye on cross section, resembling growth rings, but with lens apparent as numerous, very often merging, concentric lines frequently partly embracing the pores. **Kohekohe.**
- (ii) Parenchyma not prominent on cross section. Woods, dull red.
- (a) Wood noticeably light and soft textured. **Kamarahou.**
- (b) Wood noticeably heavy and close textured. **Kamahi.**
- (3) Woods distinctly light and soft.
- (a) Growth rings apparent to unaided eye.
- (i) Colour red brown. Lustre dull. Texture coarse. Pores very abundant, readily visible to naked eye. Wood fairly tough. **Willow.**
- (ii) Coarse woolly texture. Lustre dull, pores abundant and visible without lens. **Poplars.**
- (iii). Wood very fine texture, pores minute, invisible without lens; very uniform. Colour pale yellow or nearly white. Lustrous. Growth rings terminated by fine line of parenchyma. Wood tough, often with interlocked grain. **Horse chestnut.**
- (b) Growth rings not apparent to unaided eye.
- (i) Wood light brown; soft, but tough and elastic. **Pukatea.**
- (ii) Wood white (clean white to dirty white). Rays prominent, lighter than background. **Mahoe.**
- NOTES—(N.Z.) after name of wood indicates key specimens were of New Zealand grown, not imported, timber.

CLUB AND SCHOOL JOTTINGS.

The Forestry Club.

The need of some sort of bond between the students of the new school was felt early in the session, and it was therefore decided to organise a club or other body to serve both as a means of providing some social amenities for students and staff, and to advance the aims and ideals of the forestry profession.

At a special meeting of the staff and of all students enrolled in the School, called by the Lecturer in Charge on the 24th June, 1925, at Canterbury College, formal effect was given to this decision by the formation of the Forestry Club of the Canterbury College School of Forestry—a body consisting of the staff of the

School and of all students taking courses in the School of Forestry, and open at all its meetings to practising foresters, students in forestry at other institutions, and persons interested in forestry generally.

At the first meeting of the Club, the first of its kind in New Zealand, officers for the year 1925 were elected, and the necessary machinery for orderly conduct of the meetings was provided for. Bearing in mind the dual purpose of the club, that it serve as a means of promoting good-fellowship among the students, and that it serve as a medium for furthering the scope of the profession, it was decided that at each meeting there be presented a prepared paper by some member of the Club, or by arrangement, by some forester of recognised attainment, dealing with some aspect of forestry or associated topic, and that, following the business of the evening, the meeting be declared social, to be concluded with light refreshments and "smokes" provided for from the Club treasury.

For the initial year, meetings once a month were considered advisable, though since the club has in the past year so clearly proved its value, and as membership will no doubt be greatly increased in the next year or two, it is very probable that fortnightly meetings will hereafter be the rule.

A written constitution was, in view of the compactness of the Club, deemed unnecessary for the present, and all formality has been dispensed with as far as possible, so as to make for as free an interchange of ideas as possible.

Those present at this initial meeting of the Club were:—Messrs. Foweraker and Hutchinson, staff, and Messrs. Barker, Clark, Hamilton, Kingan, Roche and Skipworth, students. Officers for the 1925 session were:—President, Mr. Foweraker; Vice-president, Mr. Hutchinson; Secretary-Treasurer, Mr. Clark—these officers, together with Mr. Kingan, forming the Executive Committee.

Four ordinary meetings of the Club were held during the remainder of the scholastic year. At the meeting on 15th July, Mr. Hutchinson gave a paper dealing with the "Manufacture of Newsprint Paper in Canada," Part I. dealing with the bush end of the operation only, the succeeding part dealing with actual manufacture being held over until some future time. Mr. Hutchinson detailed the preliminary exploratory reconnaissance carried on in the depth of winter by means of snowshoes, dog-teams and toboggans on the Hudson Bay watershed of Northern Ontario with a description of the country, class of bush, etc., the taking up of a timber "limit," establishment of the pulp and paper mill, the cruising of the "limit" and the laying out of the plan of logging operation, the methods of felling, hauling, and transport to the mill, and the work of the Forestry Department in the securing of

full utilisation of the bush, protecting the area from fire, and experimental silviculture to determine the possibilities of reforesting on a permanent basis the areas logged off. The paper was illustrated by photos secured by Mr. Hutchinson, while a member of the Forestry Department of the Abitibi Power and Paper Co., Ltd., at Iroquois Falls, Ontario. A lively discussion followed the delivery of this paper, dealing largely with the climate and customs of the Far North.

At the next meeting, the 19th August, Mr. Barker gave an address on "Mountaineering in the Southern Alps," being an account of his experiences the previous summer in climbing several of the more difficult peaks in the vicinity of Mt. Cook. Out of several hundred excellent lantern slides, mainly from his own camera, Mr. Barker selected a set depicting the route followed by himself and companion from the Hermitage up the Tasman Glacier, with side trips interspersed to show the glories of Mt. Cook, and typical glacier and moraine scenes up several peaks of the main range of the Southern Alps, over the Graham Saddle, and down the Franz Josef Glacier to the Waiho. The pictures showed admirably the class of country traversed, and the difficult nature of the going, up dizzy rock and ice faces, and past treacherous crevasses, while Mr. Barker's remarks on equipment, snowcraft, and technique of mountaineering were found most illuminating.

Mr. Skipworth delivered his paper at the regular meeting on the 16th September, his topic being the "Birds of the Native Bush," in which Mr. Skipworth took up first the beneficial effect of bird life upon the bush, in the distribution of seed, the grave danger of insect epidemics in the bush due to the decreased population of native birds, the menace of the introduced carnivorous animals—stoats, cats, rats, etc., to the bird life of the forest. He then took up the principal native birds, and, with the help of illustrations, told how they might be identified, and what part each played from the standpoint of conservation of the native bush. Possible and practicable means of protecting the native birds concluded the paper, which provoked considerable discussion.

At the meeting of 16th October, Mr. Clark read a paper on the Economics of Forestry, dealing with the changing value of the native bush, the comparative value of the native bush, and the exotic plantations and the relationship of forestry to agriculture in the use of land, etc. Housing figures prepared by the Government Statistician were examined, and the question of future timber values in New Zealand was gone into. This paper provoked a storm of discussion, and brought out many very interesting opinions on this matter.

A special meeting of the Club was held on the evening of 3rd August in the Biological Laboratory, when the Club held an "at home" in honour of some fifteen rangers of the State Forest Service returning to their respective stations from the three weeks' instructional camp at Hanmer. In a brief speech the President, Mr. Foweraker, welcomed the rangers to the Club, after which an inspection was made of the School, with its museum and equipment, and the evening was given over to the social side of life—mutual acquaintances being formed between the students and the rangers, and reminiscences indulged in by the members of the staff with old friends of the Forest Service. Under the able direction of Mr. Kingan, a bounteous and most tasteful "spread" was provided. At the termination of the meeting Mr. Field extended the thanks of the Rangers to the Club, and Mr. Foweraker replied in suitable terms, assuring the visitors of the sincere desire of the Club and of the School for mutual friendship and co-operation.

The activities of the Club are not confined wholly to the evening meetings. During the current year visits were arranged through the Club executive to the plants of Messrs. Archbold, and Wm. Goss, Ltd. The first is the leading furniture factory of Christchurch, containing the most up-to-date machinery for dovetailing, mitreing, resawing and finishing to be found in the Dominion. Mr. Archbold personally accompanied the Club on its inspection of the various departments, and all processes were thoroughly explained and demonstrated by the men in charge, so that the members came away with a new appreciation of the varied use for various woods, of questions of completeness of utilisation, the business side of the enterprise, and its relation to forestry.

The second inspection was to the Christchurch plant of William Goss, Ltd., timber merchants. This visit was made shortly after the Spring Camp at Lake Brunner, where the bush operations and sawmill of this firm had been studied, so that it was a logical follow-on to visit the local factory and study the methods of seasoning, the resawing on the big band resaws, planing, matching, tongue-ing and grooving, manufacture of moulding, and all the various processes by which the rough timber as shipped from the sawmill is converted into finished product ready for use in building a complete house or factory. The joinery department where doors, window-frames, etc., are prepared and assembled, was an object of interest as was also the power plant, where the sawdust and planer refuse is burnt to generate electric power for operation of the machines, this plant being ingeniously synchronised with the Lake Coleridge power distributive system in such a way that the Government power comes in automatically when-

ever the load becomes too great for the local plant to handle.

The social activities of the Club this year have been limited to the monthly meetings, as it was felt that in the initial year it would be wiser to go a bit slowly. It has been felt, however, that there is room for some expansion of activity in this direction for the future, and it is likely that one or two social fixtures will become established next year. First will no doubt be an annual dinner. Such a function was not deemed necessary this year, as all the students in attendance in 1925 will return and continue their scholastic work in 1926; but in future such a gathering at the close of the scholastic year as a valedictory to the men who leave the school to take up their work in their chosen profession will be a ceremony of real import to the Club.

STUDENTS—1925.

By way of placing on record the names of those students who were regularly enrolled for the 1925 session of the Canterbury College School of Forestry—the first session of a recognised School of Forestry to be held in New Zealand—the following brief notes as collected by the Secretary of the Forestry Club are of interest in showing the personnel of the school during its initial year, and their reasons for pursuing the forestry course.

C. S. Barker, of Woodbury, South Canterbury, went to the Mackenzie Country to sheep-station work upon leaving Christ's College in 1919. Here he became interested in forestry from experience in tree planting in that bare and wind-swept district. He was one of the pioneers, therefore, in 1924, when lectures in forestry were first begun at Canterbury College, and has now completed his second year of forestry work. Although not matriculated, he plans on a three-year course similar in scope to that of the associateship. Barker spent part of last summer at Hanmer gaining practical experience in nursery work.

A. F. Clark was born in England, and prior to the war was on the staff of the National Provincial Bank of England in London. Joining the colours on the outbreak of hostilities he saw four years' service with the Imperial forces, being gassed and invalided out in 1918. Emigrating in 1921, he came first to Tasmania, and then to New Zealand, locating in Taranaki, where he tried farming and station work. During a short visit to Hanmer he became acquainted with the work of the State Forest Service, and learning that facilities for education in forestry were available at Canterbury College, enrolled at the beginning of the 1925 session for a three-year course.

S. C. Hamilton, another Christ's College old boy, also saw four years' active service—with the New Zealand Expeditionary Force. Upon demobilisation he took up farming in Canterbury, but later was employed on survey work, and in 1924 secured a post at Hanmer Plantation with the State Forest Service. Convinced of the desirability of taking a technical course in forestry, he availed himself of the opportunity offered by the opening of the School of Forestry in 1925 to enrol for a two-year Ranger course, with the possibility of a third year of study.

C. W. Kingan left school early and followed farming and station work in Canterbury for some years, finally becoming interested in gardening, and especially horticulture. He attended some of the lectures given in 1924 by Mr. Foweraker, and in 1925 turned up at the school to enrol for a three-year course in forestry.

H. Roche was born on the West Coast diggings, and after leaving school went into survey work with the well-known firm of Learmont and Maclean, remaining with them some years, and having a share in the opening up of the bush consequent on the building of the Midland Railway. Incapacitated for war service by an old injury, Roche was on the Otira tunnel construction from end to end, with the Public Works Department, being shifted to the Mangahao project upon the completion of the tunnel, in the capacity of foreman. Upon the creation of the State Forest Service in 1921, Roche received an appointment as Forest Ranger, first in the Westland Region, and then in the Canterbury-Otago region, a position he now occupies. When the School of Forestry was opened in 1925 Roche took advantage of his location in Christchurch to attend such lectures in forestry as were possible without interference with his official duties. He was granted a provisional matriculation, which was confirmed upon the satisfactory completion of his first year's work. He is taking the Associate course.

Mr. Skipworth came to the school direct from the Christchurch Boys' High School, gaining his Matriculation last year. He is taking the Degree Course, becoming interested in forestry through a seed-extraction job which he performed for the State Forest Service during the past summer.

SUMMER WORK—1925.

While the greater part of the tuition in the School of Forestry is given at Canterbury College during the regular scholastic terms, it is evident that in such a practical profession as forestry theoretical and laboratory training must be reinforced by actual field experience in practical forestry before the forestry student can be considered competent to take