

- 4°. Flore forestière, par M. Mathieu;
 5°. Manuel du garde forestier, par M. Bouquet de la Grye;
 6°. Les codes de la législation forestière, par M. Jacquot.

Approuvé:
 Le Directeur Général des Forêts,
 J. LAYDEKER.

Hagenau, le 6 Janvier, 1867,
 D. BRANDIS.

Concerning the books on forestry recommended in the last paragraph, I desire to state that M. Bagneris, one of the Professors at the Nancy Forest School, has just published an excellent small handbook, entitled "Manuel de Sylviculture," which may be substituted for the books mentioned under 1° and 5°. This manual is principally intended for the use of subordinate forest officers, and I understand that the French forest administration has purchased a large number of copies for distribution. It will be found to contain nearly all that is wanted to guide Indian forest officers in studying in France this particular branch of the subject. By way of a general introduction I would recommend the perusal of an essay written by Mr. Sykes Gamble on the State Forest Schools of France ("Transactions of the Highland and Agricultural Society of Scotland, 1872"); and in order to acquire some familiarity with the current literature of forestry, I would recommend to take in for one year the Monthly French Forest Magazine ("Revue des Eaux et Forêts"). With it is distributed to subscribers the "Annuaire," containing the forest statistics for the year, the classified list of all forest divisions and districts, and a complete list of all public forest officers. A small popular work by Clavé ("Etudes sur l'économie Forestière," Paris, 1862,) will also be found useful by way of introduction. With the assistance of these publications, any one familiar with the language will soon make himself at home in the terminology of the profession and in those general notions which it is well to possess before entering upon a regular intercourse, on professional matters, with French forest officers. I would not recommend any one to commence his regular studies in France, or to present his official letters of introduction, unless he be sufficiently acquainted with the language.

Natural reproduction the rule.

Forestry in France has certain marked peculiarities and strong points which it may be well briefly here to indicate. Natural reproduction is relied upon to a much greater extent than is the case either in this country or in North and Middle Germany; and upon the whole, it must be said that the young and middle-aged forests which have grown up under the systematic management of the last sixty or eighty years, are in a very satisfactory state. I am not now speaking of coppice woods and coppice under standards, where natural regeneration is easy and follows as a matter of course, but of the high timber forests; both of coniferous and leaf-bearing trees. The moist, and, upon the whole, mild climate of most parts of the country, is a great help in this respect, but much is due to care and good management.

Great variety of forest trees.

Another point is, that the woodlands of France are composed of a much greater variety of trees than those of England or Germany. The different kinds of oak are the most important forest trees in France, and as the requirements of the two principal species of oak are similar in many respects to those of the teak tree, the treatment of the oak forests in France deserves careful study. I would draw special attention to the pure oak forests (of *Quercus pedunculata*) on the deep alluvial soil along the Loire, Adour, and other rivers of western France, and the mixed oak (chiefly *Quercus sessiliflora*), beech, and hornbeam forests which are found in most parts of central France. A small pamphlet by Bagneris and Broillard "Etude sur la production du Chêne," (Paris, 1870,) will be useful as a guide. The pruning of the oak standards with coppice underneath is done with great skill and on a large scale in many private woods of central France, and Indian foresters will do well to make themselves acquainted with the experience of those who are in favour of extensive pruning, and the views of those foresters who desire to restrict it to the removal of dead branches and of side shoots of stems suddenly placed free. Oak coppice for the yield of bark of the two species mentioned, and of *Quercus tauzin* in the west, of *Quercus ilex* and of *Quercus pubescens* (the southern variety of *Quercus sessiliflora*) in the south of France, as well as the small scrub coppice of *Quercus coccifera*, the kermes oak, are all worth studying. I strongly recommend the management of coppice for bark under different circumstances, not in France only, to the careful study of Indian forest officers, for there seems little doubt that the best mode of treating cinchona plantations will eventually be as coppice woods. The cork oak forests of the Provence will afford another subject full of instructive information, and I desire to draw special attention to numerous well-managed private estates between Hyeres and Draguignan, in the granite hills of the Maures, where the cork oak is grown mixed with *Pinus halepensis* and *P. pinaster (maritima)*. The attempts made to protect these forests against the fires of the hot and dry summer months will be found to suggest similar measures for some of the Indian forests.* Of coniferous trees I will name the silver fir of the Vosges and of some parts of the Pyrenees, particularly in the Département de l'Aude, south of Carcassone, the larch forests of the Alpine districts, the forests of *Pinus pinaster (maritima)*, of southern and western France, and those of *Pinus laricio* in Corsica. The arborescent vegetation of that island presents a marked succession of forest zones, according to elevation, instructive in many respects to the Indian forester. Above the vast extents of *Maki* (thick and dense brushwoods of *Phillyrea*, *Pistacia*, and other evergreen shrubs) which occupy the hilly land along the coast, are found, principally in sheltered and moist valleys, high timber forests of *Pinus pinaster* and *Quercus ilex*, and vast orchards of the sweet chestnut (*Castanea vesca*). At a somewhat higher elevation commences the region of the Corsican pine, forming extensive forests, pure below, and mixed near its upper limit with the beech and silver fir, which form the last and highest belt of arborescent vegetation in the mountains of Corsica. "Mathieu's French Forest Flora" will be found an excellent guide to those who desire to become familiar with the trees and shrubs of the different parts of France, and as an additional help I will mention "Le Maout et Decaisne Flore des Jardins et des Champs," Paris, 1855. Two of the coniferous trees are important on account of the resin which they yield. The extraction of resin should be studied either in the *Pinus laricio* forests of Corsica, or in those of *Pinus pinaster* in the Départements des Landes and de la Gironde.

* An excellent book to be consulted on the forests of the Provence is Charles de Ribbe, "La Provence au point de vue de Bois, des Torrents et des Inondations."