

and the packs of hounds kept by sporting members of the planting community are hardly sufficient to keep down the game. The open season is now the most unfavourable one for hunting, and some owners have been obliged to sell their hounds in consequence. The Forest Department plantations at Nuwara E'ia and Nanuoya are suffering much from the attacks of red deer and elk. In some places as new parks are put in they are browsed down. I should not be surprised to hear that private properties suffer in the same way. It would be therefore desirable to make some provisions for keeping the game down within reasonable limits.

#### PROPOSED FORESTRY BRANCH AT THE SCHOOL OF AGRICULTURE.

Owing to the courtesy of the Government of India, some of our superior officers have been able to study at the Imperial Forest School at Dehra Dun, and in 1894 two rangers are to be sent from here. It has, however, struck me that, with the present staff of the Agricultural School, together with some additions from the Forest Department, it would be possible to give to our rangers and guards, and also to candidates for appointment in those grades, a training which, although not equal to that obtainable at the Indian school, would materially help in a proper and careful treatment of our forests. Large sums of money are no doubt spent on the Dehra Dun school; the best professors are obtained from all parts of India, and an experience of thirteen years has now shown the best way to impart a practical knowledge of forestry and its appendant sciences, and we cannot hope all at once to compete with Dehra. But, whereas this Government cannot afford to send more than three or four men at a time for a lengthened period of time to a distant place like the north of India, it may be more practicable to have classes in Colombo and to teach forestry in the very forests in which officers will be called upon to practise it. I have therefore been ordered by Government to discuss the matter with the Director of Public Instruction, who has kindly offered to give all the assistance possible. The final proposals have not yet gone in, but we shall submit them before long.

The receipts for 1893 amounted to R365,758 (as against 462,427 in 1892) and the charges to R404,756 (as against 475,491 in the previous year.)

#### TEA DRINKING IN JAPAN AND CHINA.

To take a cup of social tea in China and Japan is not only a pleasure, as it is with us, but a solemn duty born of generations of custom. \*\*\* The delicate straw-coloured beverage which is consumed in Japan differs very materially from the infusion called tea at home. \*\*\* The teapot is heated with hot water before the tea is put in, then hot water, not boiling, is poured over the leaves, and immediately poured on and off, but it is never allowed to stand on the leaves more than a minute.

In most houses a kettle of water is always on the *hibachi*, a sort of portable stove, resembling a brazier, and this is set before the tea-maker, who watches the bubbles and steam with as much anxiety as if the fate of the whole Empire depended upon the water being used at a certain instant. Both men and women make tea so daintily and daffily that it is a perfect delight to watch them. \*\*\*

The natives themselves use neither milk nor sugar in their pale, yellow tea, but when they can get a cup of what they call China tea—which is a great treat, for they prefer it to their own—they use "all the trimmings." \*\*\*

The Banko teapots, with the plainly visible thumb marks, are much prized by the Japanese, but a tiny teapot of Kaga ware, with ten cups—the Japanese dozen or set—is the one most commonly seen. Some of the fine tea sets cost fabulous sums.

Many of the old families have brass or iron kettles, beautiful and artistic, which they proudly show, and declare that they have come down to them by direct inheritance from ancestors who used them six and

seven hundred years ago. A story is told of one of the Shoguns, who, being very fond of tea, rather unscrupulously gratified his taste for fine kettles by robbing the pagodas of Buddhist temples of the brass rings that surmounted them, and used the metal thus secured for casting a kettle, which he declared gave "no harsh taste to the water." \*\*\*

The Chinese are as inveterate tea-drinkers as the Japanese, but they use leaves prepared in a different way. \*\*\*

The Chinese keep always a kettle of water boiling over the brazier ready to make tea at a moment's notice, for no visitor ever goes to a house without being offered tea on arriving and departing. They use boiling water, and pour it over the dry tea in each cup. Among the better class, a cup shaped like a small bowl is used with a saucer which is a little less in diameter than the top of the bowl, and is used for a cover when the tea is brewing. When the boiling water is poured over the tea, it is covered for the space of two or three minutes, by which time the leaves have unfolded and fallen to the bottom of the cup, leaving the tea clear and deliciously fragrant. \*\*\*

The Chinese have a variety of teapots, most of them much larger than the toy things of the Japanese, and many of them kept in a basket cosy. The handles or halls are often bamboo or metal, similar to the *do-bin* of the Japanese.—"The Lady," Aug. 9.

#### PIASSAVA FIBRE.

On my way to Cape Coast I noticed a small quantity of Piassava Fibre being shipped from Appam. This valuable fibre is obtained from the palm which is so common and plentiful in this part of the colony, namely, "*Raphia Vinifera*." It is a very important product, being worth from £45 to £60 per ton according to quality.\* Great interest is at present shown in England in the discovery of similar fibres to this, and there is a good market for them, but the supply is very small, owing chiefly, I think, to the difficulty experienced in extracting and cleaning the fibre. It is chiefly used for brushmaking. I will make enquiries and endeavour to obtain information respecting suitable machinery for cleaning and preparing the fibre which information, if I am able to procure it shall be published in my next report.—*Mr. W. Crouther's Report, Gold Coast.*

#### SELECTED ENGLISH PATENTS.

TEA.—No. 15317.—The Waygood-Tupholme Grocers Machinery Co., Ltd., and B Tupholme, Falmouth Road, London.—Relates to apparatus for cutting, equalizing and blending tea. The cutting apparatus consists in a pair of the usual cellular rollers and two knives A in contact therewith, which are fixed on shafts B carrying levers connected by a spring Pawls are pivoted on the levers and are usually supported by the fixed checks, but when nails, stones, or other articles push back either of the knives a little, the corner of the pawl moves in to gear with a cam on the roller shaft, and the lever C is thereby pushed further way, so that the knife A is turned sufficiently to allow the foreign body to pass. The spring D then brings the knife back to the cutting position. From the cutter the tea falls upon a travelling band, to which other tea may also be supplied, and is conveyed to a mixing-cylinder containing three canted wings and two byonet sided trihedrons which during a few revolutions of the drum, effect the blending. The door of the drum is opened and closed by a pair of racks thereon, which can be put into gear with two pinions on shafts above and below, operated respectively by a pulley with an endless rope, and by a hand-wheel. From the mixing drum the tea glides gently into troughs in which scoops fit easily. Or the tea may be delivered into a chest by a travelling belt. For delivery into bins on the floor below a receiver or carriage is used having four triangular

\* Written two years ago.—Ed. T.A.

doors in the bottom supported by chains. The carriage is run over a hopper containing sliding doors so that either of the four bins may be filled.—*Indian Engineer*, Aug. 25.

### THE AMSTERDAM BARK SALES.

The Cinchona-bark sales to be held in Amsterdam on August 30th will consist of 355 cases and 4,451 bales (about 423 tons) divided as follows:—From Government plantations, 67 cases and 231 bales (about 28 tons); from private plantations 288 cases and 4,220 bales (about 395 tons.) This quantity contains of druggists' bark: *Succirubra* quills 11 bales 296 cases; *succirubra* broken quills and chips 150 bales 59 cases; *succirubra* root 5 bales. Of manufacturing bark: *Ledgeriana* broken quills and chips 3,102 bales; *Ledgeriana* root 809 bales; *officinalis* broken quills and chips 10 bales; hybrids broken quills and chips 350 bales; hybrids root 14 bales.—*Chemist and Druggist*.

### COFFEE CULTIVATION IN THE BLUE MOUNTAINS: JAMAICA.

I reached Cedar Hurst shortly after noon and accompanied by Mr. Francis, I visited his Coffee Plantation. Fortunately the gathering of the crop was in full progress at the time and I had an opportunity of carefully observing this operation. The crop is gathered by men, women and children, who deposit the ripe berries in bags or baskets when picked. One very noticeable feature is the skilful way in which the negroes carry the baskets, &c. on their heads. This is of great advantage on such occasions as the present because instead of being obliged to use one hand to move the basket both are available for picking the fruit. At the end of the day all the coffee is brought into the receiving-house, where it is measured and the pickers paid in proportion to the quantity they have gathered. If laborers are plentiful 1/ per tub is the price usually paid. Sometimes a woman will pick as much as a tub and a quarter in the day, but this is exceptional. Extreme watchfulness is necessary on the part of those who supervise the picking gangs, as there is a tendency to fill up with green berries. When however, this is detected, the defaulter is severely reprimanded and a deduction is made from his or her earnings. A tub of newly picked coffee should produce half a tub of parchment coffee or about 20 pounds of marketable coffee. Before leaving this part of the subject I might mention that whilst going round this estate I had a clear illustration of the imprudence of allowing the tree to grow to a greater height than say six, or at the most seven feet. The trees in many instances have not been topped, but have been permitted to grow as high as eight or ten feet. In order to reach the berries the pickers are obliged to pull down the branches, and the consequence is that the topmost ones are frequently broken and the tree itself very much injured. On the whole the trees on the Cedar Hurst Estate were bearing heavily and appeared to be in a healthy and flourishing condition. Some estates in the Blue Mountains of Jamaica produce as much as 100 tierces of coffee annually. A tierce is equal to 800 lb. so that the total produce is 80,000 lb. and the coffee realises from 115/ to 120/ or 130/ per cwt.—*Report of Mr. Crowther, Curator, Botanic Station, Gold Coast Colony*.

### MIGHTY TREES.

For the past fifteen years the Naval Dockyards have been partly supplied with a timber brought from the Antipodes. Thus under beneficent Free Trade the Britain of the South sends its substitute for oak to the Britain of the North, sixteen thousand miles away. It is largely used for spars and yards; and as masts for the largest war ships has been found superior to all others. The tree yielding a wood so favourably known to trade and naval experts is the kauri (*Dammara Aus-*

*tralis*). Confined to a very restricted area; it flourishes only in the northern part of New Zealand—chiefly in that narrow peninsula tapering off to a bold headland—and is the undisputed sovereign of the Australasian forest. No other tree can approach it in grandeur of proportion or in impressiveness, when, as one of a class, it holds its own over stretches of country hundreds of miles in extent. Unlike the pines of the Old World, it has no needles, but masses of small pinnate leaves of an olive-green colour, and in the early spring tiny white blossoms. In the autumn the branches are loaded with apple-shaped cones. When towering singly or in a group above the mixed bush it repels the undergrowth and wanton parasites on every side, the limits of its sway being marked by a bare, round patch of brown earth. As a rule, however, it grows in forests sacred to its own species. In Auckland Province there is, or was, a wood extending over hill and dale, mountain and gully, for fully 500 miles, and further south there are others of hardly less area. The trees stand close together, not branching out until near the top. The diameter at base measures from 30ft. to 60ft., attaining a height of from 100ft. to 130ft. before it shows a single bough. The holes of quite young trees are often 20ft. in girth, and 100ft. in height, while some patriarchs soar up straight as a larch to close on 200 ft. Above this magnificent pedestal spread the leafy crowns, interlacing with one another until daylight can only enter in a dim subdued fashion, as if afraid of intruding. When compared with the titan's dimensions of the stick, however, the boughs appear small and insignificant, and never display the graceful curves and noble dome of an English oak or elm. A kauri grove once seen can never be forgotten. To walk between its mighty pillars, smooth and dark as ebony uniform in age and height, and buried in a perennial twilight and a silence, that the wildest storms only disturb by the merest ripple of sound, awakens a feeling of awe. Mile upon mile they stretch into distance in a majestic procession, which follows every irregularity in the land. The monotony and stillness are absolute. Sounds of animal life are never heard. The contented droning of insects, and glad singing of birds, are as vigorously excluded as the sunshine. The kauri reigns supreme in its own domain. Nor is the luxurious under-growth of the bush tolerated—no palms or tree ferns, no shrubs or orchids, none of the beautiful parasites which make the mixed woods so enchanting; nothing but a living carpet of delicate maiden-hair. But to bring home to the mind the stupendous size of the kauri it must be compared with the largest trees in these islands. In England there are several elms 70 ft. high and 30 ft. in girth; oaks 80 ft. high and 40 ft. in girth; and in Scotland there is an ash 90 ft. high and 19 ft. in girth. But these are regarded as extraordinary, and grow in solitary grandeur. The average girth of a tree in Britain is not more than 12 ft., or the average height above 60 ft. But in New Zealand there are miles of kauris whose average height is not less than 100 ft. and whose girth is not less than 30 ft.

A tree somewhat similar to it in appearance, but not so valuable in a commercial sense, is found in the Fiji Islands, a fact ascertained by Captain Cook in his several visits to the South Seas. He then pronounced the kauri pine superior to Norway pine, a judgment which has since been abundantly verified. Not only is it a source of wealth to the Colony—the value of the export trade averaging 176,732l. a year—but it is used