(9.) Promoting co-operation between—(*a*) Provincial and town authorities; (*b*) managers and railroads, telephone and telegraph line; (*c*) adjacent logging operators; (*d*) fishing and game associations, &c.

(10.) The creating of a reserve fund for the immediate and emergency fighting of fires which may be discovered upon the lands of the association, and which will need attention until the landowner can be advised thereof and respond.

Although, of course, certain provisions for checking the spread of surface fires are not overlooked, probably the moist conditions prevailing in Great Britain render the adoption of our somewhat elaborate scheme unwarrantable. In England, Scotland, and France (sand-dune plantations) the barriers are much narrower, and I failed to observe the systematic method adopted in New Zealand of the introduction of fire-resisting poplars, birch, &c., for lining the interior breaks or external fringes. Very little special cultivation was seen, although the sheep-grazing proposition evidently finds favour in certain districts, after natural regeneration has been accomplished. Usually reference to the fire-break question is given by writers, but the little notice taken by planters in the general provisioning for the control of fires gave me much surprise. Apart from the erection of lookout towers in extensive plantations, nothing worthy of adoption here was seen that can be included under this heading.

Regeneration of Forests.

In Scotland the regeneration of pine and larch forests is proceeding apace, and on quite a number of private estates much interest is being shown in this direction. At the Earl of Seaforth's Strathspey forest splendid results were seen, and the inclusion herein of notes on our itinerary may be interesting.

"The woods on the Strathspey Estate are situated at altitudes ranging from 600 ft. to 1,600 ft. The soil for the most part is of a shallow and light nature overlying rock or pan. The superficial accumulations on the level ground of this district consist principally of gravelly and sandy till, and this also may be said in a less degree of the higher ground, while small alluvial flats occur along the valleys.

"The woods are purely coniferous, the main crop consisting of Scots fir with a small percentage of larch and spruce. The shallow nature of the soil, combined with the prevalence of early and late frosts, makes it a little difficult to deal with conifers other than those mentioned, unless as underplants.

"As most of the time was devoted to the inspection of natural woods, it may be advisable to mention briefly the broad lines that are adopted in Strathspey for the purpose of restocking by self-seeding. Natural regeneration of both Scots fir and larch occur all over the estate to a greater or less degree according to soil-conditions, &c. The treatment of all woods from their younger stages upwards bears relation to the general methods of sylviculture, but the woods from about eighteen years of age are generally grazed by sheep or cattle. When woods have reached the end of the rotation they are thinned gradually and treated more or less under the compartment or selection system. The preparatory stage comprises several thinnings, and, although it varies according to exposure and the condition of the crop, there are generally three cuttings or thinnings, then seeding stage and final felling. The period over which these stages may extend depends upon the forest conditions; in some cases it is short, the young plants showing quite early; in others it extends to ten years and over. A commencement is made by removing all inferior trees or trees not suited for the main purpose or object in view. The point aimed at is to leave trees with narrow crowns, long clean boles, and having healthy appearance, thus fostering strong fresh shoots and ensuring a plentiful supply of healthy seed. Briefly, the procedure with a crop of, say, two hundred trees to the acre is as follows: First thinning, a hundred trees are removed; second thinning, fifty trees; third thinning, thirty-five trees: thus fifteen trees are left as seeding-trees, which are removed when the area is more or less restocked. This method has been found to work well here, and has the advantage of not only allowing the seeding-trees to develop shoots sufficient to grow healthy seed, but there is little or no danger from wind-blows.

"After the Scots pine woods here begin to open up, or are opened up, admitting light and air, the ground is very thickly covered with heather and moss, which if not disturbed would render self-seeding impossible, or at least of little consequence. In order to combat this as little as possible the woods are grazed heavily or closely by farm stock: thus the heather is to a certain extent kept in check and the mossy surface disturbed and broken up. The breaking-up of the surface for the reception of seed could be done by workmen, but this would add considerably to the expense, and as almost the same benefit can be got by pasturing that method is adopted here. At the seeding stage all sheep and cattle are removed.

"Although the selection and compartment system is always applied here, evidence is not wanting that the strip system would be successful in some cases.

"*Tominourd Plantation.*—The area of this plantation is 1,031 acres, and rises in altitude from 620 ft. to 1,350 ft. Up to 1,000 ft. the crop grew well, but beyond that elevation the trees fell off considerably. The north side to the extent of 520 acres has been recently felled or cleared of old trees, the crop then being an equal mixed one of Scots fir and larch. The fellings extended over a period of seventeen years. To begin with, larch came a pure crop where the herbage was mainly heather, but latterly the percentage has increased in favour of Scots pine. On grassy surfaces self-seeding has not been nearly so perfect, especially on the lower levels, and artificial planting must be resorted to in order to make the crop complete. The young natural larch here is almost completely free from disease, and, although in places the plantation is so thick and close as almost to exclude light and air, the plants remain immune. Larch-aphis (*Chermes laricis*) attacks the crop occasionally, but so far has not acted as a serious check. So long as the larch remain healthy they will be left to form a pure crop, but if they begin to show signs of disease