

forest roads and stop a short time at several places to see the process of natural regeneration by the group system.

The group system of regeneration is worked as follows: When an area is selected for final cutting, the trees are removed in circular patches of about fifty yards in diameter, a mother-tree being left here and there for seeding purposes and shelter. The clearings are comparatively close to one another, say, within fifty yards; the object of keeping the clearings so small is to avoid exposing the ground too much to the sun and light, which encourages the growth of grass and weeds, whereas the young seedlings do best under shade. In about four years' time, if the clearings have been made at a favourable time when the mother-trees are producing seed crops, the ground will be covered by a thick crop of young seedlings. When this has been accomplished, a second cutting is made; this is done by enlarging the circular patches, and cutting out a ring round each circular patch, so that the circular clearings are now almost touching each other. Another period of four years is allowed to lapse for the newly cut ground to become covered with seedlings. When this has been accomplished, the remaining trees are removed with the exception of, perhaps, a few trees to complete the sowing of any bare portion; or hand planting is resorted to, in order to fill in gaps.

The above is a brief description of regeneration by the group system. As I saw it at Kelheim, it appeared to be working admirably and there was a splendid crop of young spruce coming up where the ground had been cleared.

There are other methods of regeneration, such as cutting out long narrow strips, which, in time, will be restocked from seed, carried by the wind. The strips should be narrow to prevent the growth of grass and weeds; all bare patches that

have not seeded well are hand-planted.

The Germans lay considerable stress on shelter, and always begin cutting on the leeward side, away from the prevailing wind. They also, when afforesting an exposed or cold site, provide some shelter trees, such as birch, to protect the young seedlings, especially in cases where land is being prepared to receive a forest crop for the first time.

I am of opinion that, if nature is assisted by science in the natural regeneration of forest lands, which have been allowed to deteriorate, much labour, time, and expense will be saved.

It is possible that this branch of the subject might be profitably studied and applied to conditions, such as exist in Canada to-day, and that vast areas in Canada might be reforested with valuable timber by the practical application of scientific principles.

In fact, I might go further and state that it will be practically impossible to reforest a great deal of what was former forest land in Canada, without assisting nature by the application of methods which have been devised by close scientific study.

THE NEWLY-APPOINTED BISHOP OF REGINA.

Hearty congratulations will be extended by the members of the Forestry Association to Right Reverend Mgr. Mathieu, late rector of Laval University, Quebec, on his elevation to the bishopric of Regina. Mgr. Mathieu was, at the last annual meeting of the Canadian Forestry Association, elected to the directorate in the place of the late Mgr. J. C. K. Laflamme. Not only has Mgr. Mathieu attained a high degree of honor in academic circles, having received the degrees of doctor of theology and doctor of philosophy, but he has also been honored with the distinction of C. M. G. and is a Knight of the Legion of Honor of France.

Attention is called to the advertisement for a woods superintendent in another column.