

under open air exposure, as we know from experience; every season the red spruce poles have to be replaced more frequently than the black in fences.

The best general description that has hitherto been published of *P. rubra* is that of my late friend William Gorrie, in the Transactions of the Botanical Society of Edinburgh, Vol. x, p. 353. Mr. Gorrie's description was taken from the tree as observed by him in the plantations and pleasure grounds in Britain, but, so far as it goes, it corresponds entirely with the tree as seen in the Nova Scotian woods:—"The red spruce fir, or Newfoundland red pine, is found in Nova Scotia, some parts of Lower Canada, and northward to Hudson Bay, but is not included in Dr. Asa Gray's Flora of the Northern United States. It is said to be a better and finer tree than either of its allies—the black and white spruces—from which it further differs in being entirely devoid of that glaucous green by which the leaves of these two are distinguished. It is in fact exactly like the common Norway spruce in the color both of its foliage and young branches, but differs from it in its thinner and more slender growth, shorter leaves, and much smaller cones. From this close resemblance in color of *rubra* and *excelsa*, Americans call the latter the red spruce of Europe. Like the *alba*, the *rubra* drops its cones in the course of the first winter and succeeding spring, while those of *nigra* are retained on the tree for two or more years. Like its two American associates, *alba* and *nigra*, *rubra* seems to delight in moist soils containing a proportion of peat, and moist upland climates. Those now growing at Tynehead were reared from seeds gathered in Newfoundland, and a portion of the plants which were planted on good, dry, heavy soil, within from two to three miles, and at half the altitude, dwindled away after the first few years, till they entirely perished. The trees at Dunmore are no doubt growing at a low altitude, but they are sheltered by a high wooded bank on the south, and are on a damp bottom. Mr. Andrew Murray, a distinguished member of the Botanical Society, and recognized authority on Coniferæ, has ignored the existence of *rubra*, but he has probably never seen it growing, as, although long introduced, it is still scarce in Britain." In illustration of these remarks Mr. Gorrie exhibited and presented to the