

Manual Training.

THE interest in the manual training movement is spreading. St. John city is considering the advisability of opening several departments in the schools for manual training. Chief Superintendent Dr. Inch, of New Brunswick has gone to Nova Scotia to visit the schools of manual training and domestic economy, and hopes are entertained that his visit will lead to encouraging results. Prof. MacCready, Principal of the Fredericton MacDonald Manual Training School, has recently been holding meetings with the school boards of several centres in the province, and he has succeeded in arousing considerable interest, with the prospect of departments being established in some towns.

In Nova Scotia there are now fourteen manual training departments, with the prospect of one or two more being opened at the beginning of the year. Mr. Kidner informs us that at New Glasgow, where a fully equipped manual training room has been opened, the school board recently decided to give cardboard work in the grades below the age at which woodwork is taken.

In Prince Edward Island departments have been opened at Georgetown and other centres.

The outlook is therefore decidedly encouraging.

NATURE STUDY.

Christmas Trees and Evergreens.

The trees most used at Christmas are the fir, spruce, hemlock, the yew (in England), and occasionally the cedar and pine. The spruce and fir are the favorites, but the latter, owing to the balsam on the trunk and branches, is not so generally liked, although it is more symmetrical and its leaves are larger and more glossy than those of the spruce.

There are three kinds of spruce growing in these provinces—the black or red, the white, and the swamp spruce. The black or red spruce, regarded by some botanists as different species, grows in great profusion in New Brunswick. In high lands and pastures it forms sometimes dense and almost impenetrable thickets, and does not grow very large. In rich woods or low lands it grows to the height of from fifty to ninety feet, and forms a valuable timber tree, of fine shape and imposing appearance when at its greatest perfection. The bark is smooth or slightly roughened, the leaves thickly covering

the twigs, somewhat stout, straight or curved, short, dark-green. The cones are oval from one to two inches long, becoming reddish brown when mature. The cone-scales are either entire or have notched margins. The tree is very common in Nova Scotia and New Brunswick.

The white spruce differs in several respects from the one just named. The leaves are somewhat longer, less closely packed on the twigs, stiffer in texture, and sharp pointed, which renders travelling through a white spruce thicket a toilsome and irritating process. Both bark and leaves are lighter in color than the common spruce. The cones are long in proportion to their width, of a somewhat cylindrical form, greenish when young, becoming brown with age. The cone-scales are entire on their margins, not notched. The tree is very abundant along the low-lying shores of the Gulf of St. Lawrence, and though sometimes growing to a large size does not attain the proportions of the black spruce. It is also a valuable tree for timber. A small chunky variety of the white spruce sometimes has a strong and unpleasant odor. This obtains for it the local name of the "cat-spruce" or "skunk-spruce."

The swamp spruce is a tall slender tree when it grows in swamps; on mountains it is usually much deformed and shrub like. It does not attain a large size, and is usually jagged and uneven at the top.

The balsam fir is a slender tree, but often attains the height of sixty or seventy feet, with a trunk diameter of two feet, but is usually much smaller, especially toward the north. It has much smoother bark than the spruces, and the bark is further distinguished by the resin "blisters" which form smooth swellings on its surface. These contain the "Canada balsam," so useful in medicines, for varnishes, mounting microscopic slides, etc. The leaves become fragrant in drying, and are often used for making fir pillows, which are very grateful, and are said to induce sleep, which every camper-out believes. The leaves are flat, with a grooved line above, light green in color, and, when young, whitish beneath. The cones are cylindrical in shape, from two to four inches long, and one inch thick, violet or purplish when young, erect, and arranged in rows on the upper side of the branches. The wood is soft and somewhat light yellow in color; and the tree decays earlier than most other evergreens.

The hemlock is a very graceful tree, especially when small. It sometimes attains a very large