

**THE J. C. McLAREN BELTING CO.**

The following is the substance of a very neat folder addressed "To The Management of Electric Light and Power Stations," and distributed to the attendants at the recent convention of the Canadian Electrical Association at Montreal.

It is very gratifying for us to be able to say that we have handled the largest individual order for belting an electric plant that has so far been placed in Canada.

Doubtless you will be visiting our city shortly when the annual convention of the Canadian Electrical Association will be in session this month.

In all probability amongst other points of interest that will be visited will be the generating station of the Montreal Street Railway system, acknowledged by all to be the best equipped on this continent, and in this connection we beg to draw your attention to the belting transmitting the 7,000 h.p.

Our contract for this work covered the maintenance of these belts for two years from their starting up. It will surprise you to learn that the total expense to us in this connection did not amount to 1½ per cent. of the total value of the purchase.

These belts are all made from genuine English oak-tanned stock, a tannage that has properties especially adapted for the exacting work peculiar to electric plant.

So that you may better appreciate the magnitude of this contract, we give below a memo covering the number of hides and the total weight of the leather, also a memo of the lengths and widths that comprised the various drives, consisting as you will note of twelve twenty-four inch double, and three fifty-four inch three ply belts.

Number of hides, 1,630; Total weight of leather, 15,000 lbs.

One belt.	140 ft. long,	54 in. wide,	3 ply.
"	138 "	54 "	"
"	132 "	54 "	"
"	128 "	24 "	2 ply.
"	143 "	24 "	"
"	135 "	24 "	"
"	147 "	24 "	"
"	125½ "	24 "	"
"	122 "	24 "	"
"	138½ "	24 "	"
"	125 "	24 "	"
"	136 "	24 "	"
"	178 "	24 "	"
"	136 "	24 "	"
"	124 "	24 "	"

**PULP WOOD AND PAPER PULP.**

Paper is now chiefly made from wood ground up into a very fine substance. Soft wood is required. Basswood, poplar and spruce are preferred by paper makers. As spruce can be found in larger quantities than other varieties of soft wood, spruce is mostly used. The evergreen trees are in vast numbers on both sides of the Ottawa, and along many of the tributaries of that great river. Spruce is found in great abundance in Labrador and in Quebec, as well as along the rivers that flow into Hudson's Bay.

In Manitoba spruce exists in large forests around Lake Winnipeg, Lake Winnipegosis, also on the Riding and Duck Mountains, and along many of the rivers that take their rise on these ranges of hills. When scattered on open ground the trees are generally covered by branches far down the trunk: such trees are of little value, but in extensive forests

where the trees stand closer together the spruce are very tall and free from branches a long way up. The bark of the spruce is rough and scaly, and the needles are stiff and pointed so that when pressed by the hand there is a feeling as if a brush were touched. Spruce gum gathers on the bark where one tree has rubbed on another, or where limbs have been torn off by tempests. The gum is harder than the gum of any other species of evergreen tree. The wood contains a great deal of moisture, and when sawed into lumber the boards are more inclined to shrink than is the case with any other timber. Excepting the white birch no other tree grows so far north as the spruce, and the trees are found in great numbers even in Alaska. There is what is known as the black and white spruce, but any difference that exists is more owing to the situation in which the trees grow than to a change in character.

For the manufacture of paper, good, clean trees from six inches in diameter and upwards are cut into logs that contain all the good portion of the trees, and are usually floated down the rivers to where the pulp mills are situated. The logs are then sawn into two-foot lengths, and the bark is removed rapidly by machinery. The wood is ground up until it resembles sawdust, and is then placed in large wooden tanks of a circular form, water is added, and the whole is agitated by a machine, moved by steam or water power, until a coarse paste is formed. The paste is allowed to pass between warm iron rollers and coarse sheets of a papery substance are produced that are about an eighth of an inch in thickness. The pulp is again dissolved and beaten up or kept in motion until a thin, milky paste is formed.

# The Canadian Manufacturer

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