660-700 degrees F.) were converted into acid liquor and should leave the condenser at 60-65 degrees F.

The modern type, introduced with larger retorts, is much more compact and consists of a tubular surface condenser, enclosed in a steel shell, cooled by the circulation of water. The efficiency of this condenser will be considered when the actual process of the distillation of the wood and the yield of prime products is discussed. With the oven system there are generally two such condensers, one at each side of the oven.

The uncondensable gases, from the condenser, are sometimes scrubbed to remove any acetic acid and methyl alcohol which they may contain. The gases in the majority of works, pass direct for utilization as fuel, sometimes under the retorts, in other cases for raising steam. The future contributions will deal with the distillation of the wood, products evolved, quantities obtained in general practice, and the possibility of increasing the yields by improved methods and through a more scientific control.

Tree Windbreaks on the C.P.R.

IN response to a request for information in regard to the prices of tree windbreaks on the C.P.R. Western Lines, we are advised that the last two summers were exceedingly trying on trees on the prairie, particularly from Moose Jaw west, where the greater part of the company's windbreaks were planted. The hot winds, that swept the prairie during the dry spell, played havoc even with stock that had been well established and had survived many hard winters. In some cases entire plantations were killed back, and what trees survived were severely checked in their growth. and had to be cut back in order to give them a fresh start. Another feature in the destruction of trees is the panel and slab fence, which has to be maintained until the trees are sufficiently thick to hold the snow. This causes the snow to pile up, and in some cases to completely cover the trees, with the result that the young stock are badly shaken up, when the snow thaws, and settles in heavy masses in the spring.

Of course tree windbreaks are most necessary on knolls and hills, where the track is in a cut. Trees so situated get less than the average amount of moisture, due to quick run off. For this reason trees along the right of way are at a greater disadvantage than they would be around a farm or on low lying ground.

It is generally conceded by all who have tried tree planting on the prairie, that the windbreak must be of at least eight rows of trees, and that it must carry a percentage of dense shade giving, or close foliage, trees. The object of this is to reduce the amount of evaporation and conserve needed moisture. It also reduces evaporation from the leaves in the hot dry spells.

When the C.P.R. started this tree planting there had been no experiments carried on west of Moose Jaw, by either government or private- indi viduals, consequently the company adopted the accepted planting practice of eastern Saskatchewan and Manitoba, and did not plant trees in sufficiently thick strips for territory farther west. When windbreaks have been planted east of Moose Jaw they have been decidedly satisfactory.

Prairie farmers are beginning to realize how beneficial windbreaks are around their dwellings, and more so around the farms, where by repeated cultivation and ploughing, the soil is puverized, and drifts from the heavy winds. This phase of tree windbreaks is receiving attention from the various farmers' organizations, which are advocating it very strongly in their meetings and through their press.