



Mr. N. J. Anderson, Secretary-Treasurer of the U. F. A. at Barnwell, Alberta, is a great tree planter. He has succeeded in the driest years the West has passed through. His farm is good to look at, has a much higher selling value, and is able to produce abundant crops of vegetables because of the shelter from winds. To Mr. Anderson tree planting is a sound business investment

Thus you can see the variety of trees we use in our plantations is very important and we find that about the best mixture consist of rows of Russian Poplar and Maple alternately, with every fourth tree in the maple rows consisting of Ash or Elm. It is a good plan too to have the outside row of Caragana. This is a bushy plant and it helps still more to keep out the wind.

Plan Your Shelter Belt

Shelter belts to protect the farm building should enclose three sides of a square and sometimes even part of the fourth side may be planted. It is usually better not to have the solid tree belt in front of the house as it tends to shut out the view too much. It is better there, to have a well-trimmed hedge of Caragana with a row of shade trees beside it to act as a partial screen and also to afford a certain amount of shelter.

The ground for such plantation should be prepared by summer fallowing it thoroughly the year before it is planted, disking well early in spring, and plowing not later than the second week in June following with regular cultivation till the fall. If it is to be on new breaking, it will be better to work it up two years before planting it.

Beautifying School Grounds

School plantations will of course be much narrower than farm belts because the playground is usually not very large and there may not be more room for more than four or five rows. In such a case the outside row should be caragana and the others maple and Russian Poplar alternately in each row. The inside row may be either Caragana or Spruce or Pine.

Ornamental planting of the home or school grounds with large trees and shrubs is a different matter from shelter belts and will require different treatment.

All trees must be planted firmly.

In conclusion, I trust that this little talk on Tree Planting on the Prairie will have made several things clear to you.

First.—That the moisture in the plantation is the important thing.

Second.—That we get enough moisture on the prairies every year if we can only keep it.

Third.—That our two chief moisture robbers are the sun and the wind, and that if we can keep these two out from among our trees we are assured of moisture enough every year to keep them growing.

Fourth.—We find nature manages this very well by growing her trees close together so that neither sun nor wind can get to the moisture to dry it up.

Fifth.—To be successful in our plantations we have to arrange our trees with the same object in view, planting them four feet apart each way and using varieties that will shade the ground.

Sixth.—A mulch of straw or manure at the end of the second year will be of great service in helping to preserve this moisture.

Seventh.—All trees and cuttings should be planted firmly.

Lastly.—Remember that the saving of the moisture is the secret of success.

(Editor's Note:—One thousand western school teachers will read the foregoing talk to their pupils in January. This is part of the winter programme of the Canadian Forestry Association.)

An Aeroplane Stabilizer.

Paris.—Georges Aveline, an engineer, has invented a stabilizer for aeroplanes which, it is claimed, will make it possible for the pilot to leave his post while the machine continues flying automatically. The appliances have been tested by the Messageries Aerenes Company with success, it is said, on the Paris-Amsterdam line on the large passenger-carrying machine. The machine flew the whole route without the pilot, it is reported, once touching the levers. Great import-

ance is attached to the result by French aviation experts. It is declared that it will add enormously to commercial flying. In a fog or thick clouds the appliance, it is claimed, assures the aeroplane keeping the correct course. At night small electric lights reveal any deviation immediately.

Acronautical Evolution.

London, Eng.—The aeroplane of the future, according to the prediction of a writer in London *Tit-Bits*, may be driven by steam turbines, navigated by a pilot on the lookout, who will transmit his orders to the engine room like the captain of a ship. It may be able to land almost anywhere, and be large enough for use in war time to carry groups of soldiers for tactical operations. There is even a suggestion that a manless type may be evolved, for the torpedoing of battleships, from the air or the ramming of enemy aircraft. An apparatus is being developed at the Royal Aircraft Factory for automatic mechanical control of machines, both longitudinally and laterally, by means of a gyroscope. With the advent of large twin engines, and machines with four or more engines, the demands on the strength of the pilot when moving large controls began to approach the physical limits of the ordinary man, and the complication of the gasoline supply put a severe strain on the mental capacity of the pilot. A machine is now being constructed in which the depth of structure of the wings are such that engines can be installed in the wing structure. Another possibility is that of completely reversing the blades of the propeller, to act as an air brake.

Made New Record.

Hendon, England.—John H. James in winning the aerial Derby here Saturday made a record for the event. James covered the 200 mile course in 1 hour and 14 minutes, or on an average speed of 163.34 miles per hour.