collected or obtained from our own mountains, prairies and fields, the wild grasses of Canada. These have been grown carefully, and from them we have got some very satisfactory results. What led to this critical study of our native grasses was the conviction that many of the grasses imported from Europe and put into the expensive permanent pasture mixtures, which are offered for sale, are quite unsuited for cultivation in the Dominion. A very large percentage of these mixtures is made up of one particular kind of grass which in this part of Canada, at any rate, is utterly useless. That is the Perennial Rye grass. For this part of the Dominion the sooner we get rid of this grass the better, because it nearly always dies out the very first winter. It seems at first sight surprising that seedsmen here should supply and our farmers grow this grass; but it is the one chiefly supplied to them. Seedsmen would by far prefer to sell to their customers what would satisfy, but they cannot get anything better, because the demand for other grasses has not yet been sufficient to create the supply. Directly we can show that Perennial Rye and some other grasses are unsuited to our requirements, something else and something better will be found to take their place.

VALUABLE NATIVE GRASSES.

I think we shall find among our native grasses some kinds better suited to our requirements than many we now get from Europe, because they will be better suited to the climate, which is a very important matter. By this, I do not refer to the intensity of cold only, for few native plants are affected by the severity of the cold, if at all. In the majority of cases it is of little importance to plants covered with snow, whether the temperature in winter is 100 below or at zero. With introduced exotics, however, this is not the case, and the peach tree is a notable example. It is generally believed that, if the thermometer drops to 15° below zero in the peach-growing districts, the peach trees are seriously injured.

FIG. 1.—WOOD DROP-SEED GRASS.
(Mühlenbergia glomerata.)

With regard to the grasses imported from Europe, we know now that our climate is far less suited to their cultivation than to that of the native grasses. We have, too, among our 300 kinds of native grasses some from which we have obtained very good results. I am sorry that I could not bring a better collection with me; than that which I have to-day. Most of my specimens have been sent to Chicago to the World's Fair Exhibit. I have here with me, however, a few which I think will be of interest to the members of the committee. Here is a grass which seems to me to possess all the requirements of a good hay grass. It is very leafy from the bottom to the top, and although the seed does not form a large portion of the grass, a large quantity of seed is produced, because it is exceedingly small. It is the Wood Drop-seed grass (*Muhlenbergia sylvatica*) [Fig. 1]. That grass sown in the early spring will produce hay the first year in August. The spring grasses are gone by that time, and the aftermath is not ready, so that an abundance of green food in August is a very valuable adjunct to the farmers' fodder supply. There are three of these grasses which are extremely hardy and indigenous to Canada, and will grow from the Atlantic to the Pacific. The seed of the first one, which I have shown to the committee, I got in the woods near Ottawa. I have also received seeds of the others from Brandon and Indian Head.