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thoroughly competent to speak on the subject both of land and timber) states as follows: "In prairie lands, the abundant supply of timber which entirely wooded countries afford, does not exist, and in the absence of pine, poplar and spruce have to be used for building purposes. They are both inferior to pine in value, but in a great part of Lower Canada spruce only is to be had, and much of it is exported as sawn lumber to Europe. Poplar is undervalued through prejudice in a great degree. Of all the deciduous trees it is one of the best suited to take the place of pine in flooring and finishing houses, and for building the walls of dwellings it is very durable. I have seen a house built of poplar that stood upwards of a hundred years, perfectly sound to the foundation when cut open. It may not accord with present ideas to say so, but before the pine of the Ottawa becomes exhausted, our extensive forests of poplar will be valued for lumbering purposes and brought into use.

"In our interior territories spruce timber, on account of its lightness, its straightness, and its strength, will take the place of pine for engineering purposes; and birch, on account of the fineness of its grain and its strength, will be serviceable for furniture and fine wood-work, especially in the northern regions where oak and maple are not to be

"The timber of the interior is of a smaller growth than with us, probably owing to the great dryness of the summer and cold in the winter; it is therefore probably stronger and perhaps more durable. In these respects woods of the same kind differ much with the soil and climate. The oak of the Ottawa averages only half the size of that of the western parts of Upper Canada, but it is superior to it in strength, and the timber which grows in parts of Canada near the sea is more durable than timber of the same kind of the interior. In bridge building I have found it to last nearly twice as long. Great size gives squared timber an increased value in European markets, but the small dimensions into which our large Ottawa timber is invariably cut, in preparing sawn lumber for home use and exportation, shows that great size is of no importance generally for home use, excepting for the greater quantity it gives.

"White spruce is harder to saw and work up than pine, and with us it is less durable when exposed, but it is stronger, and its length and straightness make it very suitable for

building timbers."

It is eighteen years since the work from which the foregoing extract is taken was written. The progress of events during that time goes to confirm the opinions so ably stated by Mr. Russell, and so fully concurred in by myself. Pine lands or timber limits which would have been regarded as almost if not entirely worthless thirty or forty years ago owing to remotness from markets, inaccessability, or inferiority of size and quality, are now eagerly sought for, and when offered for sale excite keen competition bringing prices that would have been thought fabulous in those days. Other woods are being used as substitutes for an increasing number of purposes where pine is becoming scarce and consequently high in price. There is a constantly increasing demand for timber, not only for building and old time engineering operations, but for purposes almost unthought of when I was born. The demand for railway ties, telegraph and telephone poles, for papermaking, for block pavements and many other purposes, large as the consumption now is it has sprung up entirely within the last three-score years. In view of an increase in the population of this continent alone reaching probably into hundreds of millions, no intelligent man who studies the question can fail to see that there must surely be a corresponding increase in the consumption of timber for all the purposes to which it is now applied; for if it be superseded by iron or other material for some of these, other uses will undoubtedly be found for it which will far more than compensate for the substitution of other material.

## MINERALS.

The circumstance that I have in the course of my explorations in this central plateau, discovered few minerals of such kinds and none in such quantity of much, if any, economic value—is no proof whatever that they may not exist. Even if the metallic veins were both numerous and rich, the proportion of bare rock exposed to view is so exceedingly small that it could only be by the most diligent and protracted search, or by