

who have settled in the Hudson's Bay posts; the story of the past with reference to the cultivation of cereals and other things at these points. By taking up different sections of the country at sufficiently remote distances, and by ascertaining thoroughly what is to be ascertained on this subject, we would do something of note—to tell the world with authority and precision what there is in the North-West. Take the whole of the North-West district; take the Peace River district, that part of which some people think very highly. We ought to know more about it. We ought to be engaged in ascertaining the facts with reference to the duration of the seasons, to the period at which it is possible to sow and reap grain, whether the season is too short, whether the danger of frost is going to prevent the possibility of our cultivating cereal crops in that country, and what there is in it. I learn that of the vote which we supposed was for geological exploration, \$6,000, or about one-tenth of it, are to be devoted to the purchase of Professor Hirschfelder's collection. That may be a very proper object. We learn, also, that an indefinite amount is to be devoted to the purchase of another collection. That may also be a very proper object; but the sum required for these two collections will seriously trench upon the amount applicable for the geological survey. No expenditure would be more likely than this to be remunerative and presently remunerative. We want to know what our property is composed of before disposing of the rest of it, and to promote the efficient settlement of the part we have sold. We want to be able to give, as rapidly as possible, more and more exact information as to the natural history, in the extended sense to which the hon. gentleman referred, as to the physical features of the country, than we have yet given. I would very cheerfully take the responsibility of submitting a further proposal for a well considered, thorough and rapid survey by two or three parties in different portions of the country—widely apart as to degrees of latitude and longitude—so that we may be able to say we give samples in different points of what the features of the country are, and what the prospects are for the finding by settlers of a pleasant country in which to settle.

Sir JOHN A. MACDONALD. I am very much pleased with the tone of the hon. gentleman's remarks in regard to this survey. You, Mr. Chairman, who are an old Parliamentarian, will remember that the general opinion of the country in the old Province of Canada was rather averse to a survey, and that, time and again, we had almost to imperil our existence as a Government to carry the vote for the continuance of the Geological Survey. I quite agree with what the hon. gentleman has said. I know from the information given me by the Director General that this sum of \$60,000 will be amply sufficient for the survey that can really be accomplished in the season of 1883. With regard to the more extended operations of this Department, we must rush things. If we are going in to consider how to prepare a methodical, thorough and scientific system of obtaining natural, botanical and atmospherical calculations, climatic changes, and so on, we must do so on a well considered, scientific system; and with the encouragement given me by the hon. gentleman it will be my pleasant duty to work out, with the assistance of men who understand the subject, some system in the enlarged sense of which the hon. gentleman speaks, and submit it to Parliament next Session.

Mr. CHARLTON. The matter under discussion is one of very great importance, and one in which I have taken great interest in the past. In 1873, a motion was moved in this House calling for a geological and geographical survey and exploration of the North-West. That motion was renewed on two subsequent Sessions, and, I believe, if the policy had been pursued that was asked, the country

Mr. BLAKE.

would have been vastly the gainer. The geographical exploration which has been fully explained by the hon members for West Durham and West Elgin, need not be expensive. In fact, it strikes me that geographical explorations should precede a geological survey. Nearly all the knowledge obtained of new countries—for instance the knowledge obtained of Africa—has been acquired in this way, namely, by explorations at the expense of private enterprise. Sir Samuel Baker, at his own expense, explored the Upper Nile, and discovered the Lakes Victoria Nyanza and Albert Nyanza. David Livingstone, the African traveller, on the salary of a missionary—and very low salary at that—explored South Africa during the sixteen years he spent there before his first return to England, and gave us all the information we really possess of that country. He removed the impression that the interior of Africa was a sandy waste, and laid bare the fact that it contained immense plains of great fertility. He discovered the Zambezi, and traversed the continent first to Angola on the west coast and then to the mouth of the Zambezi on the east coast, and afterwards, at the expense of £1,000 sterling per annum from the Royal Geographical Society, he pursued the investigations which resulted in so large an extension of our knowledge of Africa. Stanley, who explored the Congo from its upper waters to its mouth, did so at the expense of two newspapers; the cost of his explorations amounting to \$50,000. The United States, at a very early period of its history, adopted this course of ascertaining the character of its new territories. Some fifty years ago an extensive expedition was formed, under the name of the Lewiston-Clark expedition. The staff of this expedition comprised some officers whose training at West Point well fitted them for work of this kind, and with a small force, consisting mostly of trappers, they traversed the country up the Missouri river, across the Rocky Mountains, explored Oregon, and made themselves familiar to a great extent with the geographical features of Oregon and Washington Territories, and what at present constitutes the territories of Dakota and Montana. This expedition cost a comparatively small sum of money. In 1842, the celebrated John C. Fremont fitted out a small expedition of a few soldiers and trappers; he discovered what is known as the interior basin, called the Great Basin, and made very valuable acquisitions to the knowledge of the United States of their great possessions. Now, a policy of that kind ought to be pursued with reference to the North-West. We know a great deal of the country now, a large amount of information has been obtained with reference to it, and the more we know of the country it seems the more we become convinced that we have a valuable possession there. Now, there are various parts of the North-West we want to know something about as speedily as possible. For instance, I suspect we might find that east of Hudson's Bay, the timber line extends much further north in that country than it does on the western side of Hudson's Bay, and it would be a matter of importance for us to know whether we have enormous timber resources in that country. It would cost a few thousand dollars to ascertain it, and I think the Government should lose no time in inaugurating a system of geographical exploration, so that as speedily as possible we should become possessed of a tolerably accurate knowledge of the outlines and capacities of the whole North-West.

Sir JOHN A. MACDONALD. I quite concur with the hon. gentleman as to the interesting nature of the region east of James' Bay. A geographical society in Quebec is now undertaking that work, and is engaged in examining, geologically Labrador and the country lying to the north of the Province of Quebec, and extending westward to James' Bay. The Province of Quebec has given a small grant, and we intend to ask Parliament, during the present Session, to aid the society in these explorations.