

He returned to England in the fall of 1841, and while there the geological survey of Canada began to take shape. The government of Canada had voted the sum of £1,500, not as an annual grant, but as a final amount for the "geological examination of Canada." The Colonial office at London made inquiries from the leading British geologists, De la Beche, Murchison, Sedgwick and Buckland, as to Logan's qualifications for the management of the survey, and they one and all recommended him in the warmest terms. In the spring of 1843, Logan returned to Canada and entered upon his duties as "Provincial Geologist."

Here the history of the survey properly begins, and in Dr. Harrington's book it is an interesting story. But in the narrow compass of an article, even an outline of the labours and difficulties, or the successes and rewards, is impossible. It is sufficient to say that under Logan's management the survey not only proved its "usefulness" very effectually, but at the same time obtained a high regard from the scientific world.

Logan was knighted in 1855. In 1869 he resigned his position, recommending as his successor the present Director, Mr. A. R. C. Selwyn. With reference to this event, Dr. Harrington says:—

"It was with feelings of deep regret that the public received the announcement of Sir William's retirement, and never was the press of any country more unanimous in its expressions of approval of the career of a public servant."

It is an unpleasant duty to have to recall the fact that the closing years of his life were somewhat embittered by a controversy which arose regarding his study of the rocks composing the "Quebec group" in the eastern Townships. He had examined the group very closely, and more particularly where they were most complicated, namely, in the vicinity of Richmond and Melbourne. His conclusions were disputed, however, by geologists who had hardly visited the disputed ground; and he thought it necessary to make a re-examination. The only complaint he gives voice to, however, is contained in the following sentence from a letter to a friend:—

"My present investigations have been undertaken with much inconvenience to myself, in consequence of some of my work having been (needlessly, as I am persuaded) called in question."

The question has not been settled yet, but the local geologists incline to Sir William's views. In the August of 1874 he went to England with the intention of returning to the study with extensive apparatus, but that proved his last journey. His health suddenly collapsed, and in the June of 1875 he died. An incident which occurred in the closing weeks of his life exhibits a touching side of his character. He had always been possessed of ample private means, but as his tastes and his habits of life were simple the greater portion of his wealth found its way into channels of benefit to others. The incident referred to may be best described in his own words. Three months before his death he said in a letter to a Canadian friend:—

"Last week I asked Mr. N—— for his account for medical attendance up to the first of March, as I was desirous of paying it periodically, instead of waiting to the end of the complaint, as one did not know how long it might last. He has attended me from the middle of December, visiting me twice nearly every day, and often remaining all night. . . . Dr. N—— is in partnership with his father, though from age the father can now do nothing. In paying the account the £57. 13s. 6d. was in a cheque to the firm; but I made the son a present of £100 for himself. He said it was the first large fee he had ever received, and was very thankful for it. The family is not very well off."

It is worth noting in this connection, also, that he had been obliged to send a fee of £190 to a London doctor a few days before this for a single visit.

Sir William Logan was a Canadian who should be well remembered by Canadians. He was the father of our geological science, and the simple nobleness of his character was worthy of any country or any period.

Richmond, Que.

J. C. SUTHERLAND.

### A SONG OF SCOTLAND.

BLUE hills in the distance line the horizon, fir-clad, and scored by many a wild corrie; for foreground, purple heather, lit up by bright sunshine; overhead, a sky of brilliant transparency. To the right and the left from the summit of our hill gleam pools and lochs 'mid fields and moors. The air is crisp with the winter's first freshness, dead leaves rustle and crack under foot. Beyond is the hill line, among grey rock and stern precipice where already white streaks mark the first fall of snow. Oak and beech fern have long drooped their heads in the little glen away to the westward. Bare-footed laddies and red-haired lassies are hurrying home to the distant clachan.

Close to the byre that nestles beneath us, a black-and-tan collie is barking *ad lib.* Behind us a castle twice burned to the ground; with a vault that once saved almost all its inhabitants; down its old stairway, worn and forsaken, glides, wringing her hands, a well-known "Green Lady."

Up from the terraces (once held for the Covenant) the grey, ruined Ardblair is seen in the distance. Here, too, in the twilight, when deep shadows fall, a white lady wanders, to see whom is death.

Blue loch and brown crag come into sight, a chain of lakes, where once ran a great river. Stone dykes separate field from field; the old kirk of Blair lends colouring. Far way westward frowns Benachally, with its sepulchral cairns, that exist to this day. All around are vestiges of some ancient fray, with cairns and "steed stalls" of the Caledonians. Here, says tradition, the stand was made, when Mons Grampius was fought with the Romans. Long before those days, wild Highlanders dwelt here, whose *crannoges*, lake dwellings, may be traced. Loch Clunie has once been of this nature, the old Bishop's Castle still stands on such site. Here, too, once dwelt the Admirable Crichton, who, at sixteen, spoke ten languages! For miles away towards Dunkeld and Blairgowrie, Druid circles and Altar stones still stand intact.

At Kinloch a place called Buzzard Dykes still shows the encampment of a Caledonian army. Thirty thousand Highlanders once gathered here to withstand with their latest breath the Romans. Craighall Bridge, but a short distance westward, spans the river across the ravine. Dense fir-woods cover the Ericht's banks, interspersed here and there with rowan and birch trees. Among these in springtime grow primrose and wind flower, bluebells and figwort in late summer. The river rushes and roars below, where frowns the old Hall of Tullyveolan renown. Above at Craig Liach it hisses and bubbles, where Lady Linday once sat to spin. Do you remember the long silken thread she was doomed to weave in penance for sin?

Down that old roadway stretching in front, a black dog once was the terror of wayfarers. No mortal dog, but an awful apparition, who followed and snapped at all passers by. Once, indeed, folks say, he spoke: "Follow me," he said, "I once murdered a man, and until the body is removed, I am doomed to this awful semblance." So the kirk went out—'twas years ago—and they found and buried that awesome corpse; the black dog followed them to the cemetery, vanished there and was never more seen!

Passing another old Roman camp at Cardean, Meikle Village is reached, rich in sculptured stones. One is singled out above all the rest, covered with hieroglyphics of some ancient hunting scene: this, say wisacres, represents Queen Vanorra, Arthur's queen. Do you remember? On this stone is the figure of a woman attacked by dogs, and many wild animals, the tradition of course was that the royal queen was so destroyed. There are here, all kinds of memorials of Arthur, "Arthur's Stone," "Arthur-bank," and many older places. Macbeth is also here represented (he fled from Dunsinane by way of Meikle), a huge block of granite of 20 tons marks the burial place of some one of his generals. At Collace, you may see his castle, built on the hill of Shakespeare's play. Every site here marks some romance, some dark story, some wraith or spectre. Bonny Kitty Nairne once dwelt at Dunsinane; do you remember her marvellous history? At but nineteen she murdered her husband; he was forty, and she loved his younger brother. Of course she was sentenced to execution; she escaped, muffled up, from Edinburgh Tolbooth; thence she shipped from Dover to France, the magistrates offering £100 for her apprehension. Here is her description from the *Gazette*: "About twenty, middle-sized, high nose, black-browed, probably dressed in an officer's habit, with a hat slouched in the cocks and a cockade in it." She came of very ancient lineage, and died, say some, in a Dutch convent. Her beauty was so extraordinary that half her judges were won by it. Away from the sites of such like traditions, the scenery begins to grow more civilized, fields kept like gardens come into sight. *Weems*, Pictish dwellings, exist at Coupar Angus. They are, to modern eyes, like rabbit burrows, only large enough to admit a man's body. They have been unroofed to the public gaze and are rapidly going to decay. Forty feet or more, they wind underground, six feet wide, by five feet deep, curving in and out like a snake's body, probably in old days roofed in with stone. Into these the Picts retired from enemies, or perhaps gathered for warmth and shelter. In strong contrast, are they not, to the mansions of the surrounding country? A few miles hence, as the crow flies, Glamis lies hidden, its turreted towers, its secret room midst those long lines of windows, containing what? Spectres or skeletons? You may walk all through its rooms and halls, and see everything but this mystery. Once, says the tale, some young people went here for gaiety, and searched for this room. They hung handkerchiefs out of each window, but were stopped in their work, ere they found the right one. Pixies, white ladies, here abound; spectres glide backwards, seen of many.

Far away from maddening crowds, far away, indeed, from the gay multitude, Scottish lore, Scottish songs still exist in the heart of the people.

E. K. P.

GLADSTONE and Tennyson were both born in 1809, Cardinal Manning in 1808, Cardinal Newman in 1801. John Ruskin is in his seventy-first year. James Russell Lowell is almost precisely the same age. John Greenleaf Whittier was born in 1807, and George Bancroft, the most distinguished American historian, in 1800. There is scarcely one of these men of whom it is not felt that the place which he must soon leave vacant cannot easily be filled. Especially is this true of Bismarck and Gladstone, of Tennyson, Ruskin, Whittier, and Lowell. It is, when we think of it, remarkable that men whose lives have, each in its special field of activity, been so busy and so fruitful, should have lived so long.

### THE FISCAL PROBLEM IN IMPERIAL FEDERATION.

MR. EDWARD PARKIN, who started somewhat more than a twelvemonth since to lecture in the colonies on Imperial Federation, has lately been addressing meetings in England, and the *Leeds Mercury* discusses the fiscal problem involved in the movement as follows:

Nothing could more surely embarrass the cause of Imperial Federation, or retard the realisation of its grand ideal, than to insist upon its relation to any special fiscal system. Yet, as will have been seen by those who have read the reports of the various meetings which have been lately addressed by Mr. Parkin, there is great proneness to thrust the fiscal part of the question into the discussion; and, it must be allowed, this proneness is not unnatural. There is great unrest in regard to the fiscal problem all around us. Our great French neighbour is very much disturbed by it just now, and will be so for some time to come. Our colonies and dependencies are all, more or less, in the throes of it. At home, too, in recent years, and despite our gathered experience, it has been revived, and laid, and revived again with amazing pertinacity. Moreover, when it has been most agitated the distressed mind have been over and over again directed for their comfort to regard the great development of our trade with our colonies. Some amongst them have taken the counsel too literally, and have gone the length of persuading themselves that it would be wise to make all but exclusive reliance upon fostering the trade relations between the colonies and the mother country by whatever kind of fiscal expedients. On the other hand, their consolation in the magnitude of the prevailing transactions has often been roughly disturbed by the contemplation of the "hostile tariffs" of these very colonies of ours. No wonder that the first thought of these persons, when the ideal of a great Imperial Federation was presented to their minds, has been—"How can it be turned to account to effect a perfect condition of trade between us all by the adoption of a common trade-nursing fiscal system?" It is not too much to say that the serious introduction of such a proposition as this into the grand problem before us would be death to the hope of Imperial Federation. So great and, indeed, so difficult is the problem itself, apart from whatever fiscal question is necessarily involved in it, that to give the question that particular shape and proportion would be to make the problem hopeless and impossible. Before we have reached anything like universal unity upon it—unity in the colonies, where it is still far from having been reached; and unity at home, where it is happily growing at a most encouraging pace—it would have the immediate effect of multiplying and aggravating differences and difficulties. But, fortunately, and as a matter of indisputable fact, the introduction of this question in any such shape is not only unnecessary, but is wholly foreign to the actual conditions of our Empire. These conditions differ absolutely from those of any of the various existing Federations, to which, with our English love of a precedent, we turn for suggestion, if not for guidance, in dealing with our own problem. The two great Federations to which we naturally thus turn are the United States and the German Empire. Each of these has its common fiscal system, deriving its Federal or Imperial revenue from a system of Customs duties, Excise, and Postal and Telegraph profits common to all the States comprised within it. We, too, should need an Imperial revenue to meet our Imperial expenditure, on whatever principle or method of apportionment this Imperial expenditure should be devised. This expenditure would, of course, have to be fixed and voted by the Imperial or Federal legislative authority, whatever shape that, again, might take; and the apportionment amongst the States, Colonies, or other members constituting the Federation would have to be also fixed and voted by that authority. But with the methods or systems upon which the apportioned quotas should be raised that authority need not at all concern itself. It is here that the difference between our conditions and those of the German Empire and the United States comes in, and of necessity asserts itself. Germany has its one continuous frontier; so have the United States; and a common fiscal system is therefore not only possible but convenient, and even necessary. Germany could not have one Customs tariff for its northern boundary States, another for its western, or southern, or eastern, nor could the United States, without introducing endless conflict and confusion. But our conditions are the very reverse of these. Instead of four frontiers we have forty times four, and even more. A common tariff system would be pleasant enough, and wise enough, if we could at once agree upon what would be the best system, and equally acceptable to all. We know, however, that this is impossible and, happily, it is wholly unnecessary. We might conceivably agree upon a common system of Excise duties, and of Post and Telegraph charges; but even agreement upon these is improbable; and it, too, is needless. What remains for us is that, having agreed upon the proportionate contributions to be made towards the common Imperial expenditure—that expenditure, moreover, being, so far as convenient, locally effected—each colony or other member of the Federated Empire should raise the amount of its individual contribution exactly according to its own wisdom and convenience. We even have a precedent for such an arrangement in a provision of the German Imperial Constitution. If there should be a deficit in the German Imperial revenue, the individual States of the Empire may be assessed to make it up in proportion to population. What is in Germany an