

higher metallurgical science was brought to bear upon it, and the prosperity of the mother lode was never more assured than it is to-day. Exactly the same thing has happened with you. Thirty or forty years ago these hills were in a crude state yielding much gold; the rich surface ores were exhausted, and with their exhaustion were supposed to be exhausted all they contained; but science has been brought to bear upon it, and the peculiar character of your ore deposit and the geology of the district has been studied, and the result is what we see to-day. Very often we hear on both sides of the line that our geological surveys do not sufficiently deal with purely technical subjects; that they are content to view only the scientific side, instead of the practical side of their work. I think that the geological surveys are right, and I think that here we have proof of it. Had it not been for the careful study of the geological formation of this part of the country such work as we see upon this vast antiferrous would never have been undertaken. It is only by the Geological Survey of Canada combining together and correlating facts that their officers, by their wide experience, are able to draw conclusions by which you practical people have been able to work a 40-stamp battery, where formerly a 5-stamp battery would have sufficed, and project a mill of 80-stamps. I say this because I feel that many of the criticisms that have been made on both sides of the line of the work of our geological surveys are not correct, and such institutions as we see to-day is a confirmation of the course they have pursued. I am drifting far away from what I intended to say, and that is to reiterate the hearty thanks of the American Institute to the societies of which we primarily are the guests, and to every lady and gentleman, and every institution which has labored so heartily to make our visit not only pleasant in the highest degree, but profitable to a still higher one. (Applause.)

**THE CHAIRMAN.** There is one thing that I think we have fully demonstrated during our trip, and that is our capacity for a jolly good time, for great eating and drinking. We have listened to some talk also, but only by a few of our members, and it is generally understood that when Dr. Douglas talks and Dr. Raymond talks that they have been studying for it, and now I want to hear from three or four others. I am going to call upon a gentleman largely connected with railroads in Pennsylvania to tell us what he thinks of the Dominion of Canada. I will now ask Mr. George P. Baer to address you.

**MR. BAER.**—Mr. Chairman, ladies and gentlemen, there is an unwritten law in the American Institute of Mining Engineers whereby we are required to elect orators to office so that those of the rank and file shall never be called upon to make a speech, and I assure you that if I were not in a strange land and under orders from a superior I would hesitate to undertake to speak, in view of the fact that it is contrary to the custom of the American Institute, but I feel that I would be wanting in full respect to you and do violence to my own sense of obligation if I hesitated to add a few words to the many that have been spoken in favor of the impression, the agreeable impression, that has been upon all of our visit to your very fine country. Very many of us know very little of Nova Scotia and of Canada. It is true we have read from time to time of the grand resources of the Canadian settlements, and of the siege of Louisburg, and the stories of cowboys as told by our own Longfellow, and we have read novels that tell us of the Seats of the Mighty, we have heard of the fine fish stories told us by Americans returning from the Dominion, so that our impression of Canada has been an agreeable one, but still it was an impression that was made upon us from afar off. We had no adequate conception that we would meet up here a generous, whole-souled people so thoroughly American and so like ourselves, and from the time we left our homes we have never known when we crossed the line, nor have we been able to distinguish the Celt, the Gaelic, the Anglo-Saxon, the Teuton or the Canadian from the true-hearted American. (Applause.) Now we have visited some portions of your land and we have seen with what earnestness you have entered upon the development of your material resources. I sometimes think that that old command given at the beginning of man, that he must subdue the earth, has been misinterpreted for centuries, and that it consisted in an attempt to subdue his fellowman, and it is only in modern times that the subjugation of the earth means the bringing of all its hidden forces under subjugation. This we are accomplishing in our own age; through heat and electricity and all the countless powers that man has developed we are subduing the earth. Deep down in the mines we take our power and compel it to unearth her hidden treasures, so that to-day more than ever on land and sea man is asserting his true dominion and carrying out his original command that we should subdue the earth and replenish it. This peaceful subjugation you are undertaking, and we can only hope, as we have no doubt, that it will be successful in every way. May I not say that the great progress that has been made in the earth in the last century has been made by men of our race. I do not mean to use that common phrase, the Anglo-Saxon, which to me is misleading, because I am of pure Teutonic blood, but I mean that Irish, Scotch, German and English, combining together and mingling together on this continent, have developed a system of government that is just and true, that has made itself felt all over the earth, not merely a government in name, but republics, for we have long since learned to know that the form of things is nothing, it is the substance that tells, and here in Canada under your own system of small States with a Queen as your central power you are as free as we are under a system of small republics under one great republic with a President to rule over us. (Applause.) So that the outward form of things is nothing. Wherever there is a pure government secured to men in their life and property and in the pursuit of happiness, there you have the true system, call it by what name you please. I have sometimes thought that the suggestion of Max Muller was true that it was not race, but it was language which unite a people. Philologists tell us that centuries and centuries ago upon the high table lands of Asia there dwelt a people speaking a common language and that in the course of years they wandered westward and southward and created the great commonwealth of Greece and the great Empires of Rome, and gave a high order of civilization to the world, and that in the course of years and years they forgot the common language, so that when they met they could not understand each other. I have sometimes thought that here on the American continent were to be reunited all the scattering and wandering tribes, and that here men coming from every race and speaking every tongue under the heavens as in the beginning before the dispersal they were united, and that the common tongue they would speak would be English, so that the English-speaking people would be the typical race for all time to come. (Applause.)

**THE CHAIRMAN.**—We have a gentleman from Michigan, and he has also been studying the mines in this section of country as we have, and I am going to call upon Mr. William Kelly, of Vulcan, Mich., to say a few words to us.

**MR. KELLY.**—Mr. Chairman, ladies and gentlemen, I did not know that sitting alongside Mr. Lewis necessitated the making of a speech or I would certainly have got here earlier and chosen one in the far corner. However, being called upon, it seems that the duty is imposed upon me of expressing my thanks—which is undoubtedly the sentiment of all the members of the American Institute of Mining Engineers—for the courtesies that have been extended to us since we joined the party at Quebec, especially to those societies who planned the programme, and to those friends who have so kindly lent their aid. It seemed as if it was almost becoming a

contest between the hospitalities that were being extended to us and the physical capacity we had to receive them, but our capacity to appreciate has not reached its limit, and we are carrying away memories that will live forever. (Applause.)

**THE CHAIRMAN.**—The gentleman whom I am now about to call upon is a member of the Canadian Mining Institute, yet he has taken to-day his first initiation in mining, and he has during his daily life so much figuring with finances and that sort of thing that I am going to ask him to talk about plain every day matters, especially his experience in the first lesson he has taken in mining.

**HON. W. S. FIELDING, Minister of Finance.**—Mr. Chairman, ladies and gentlemen, I count myself fortunate in being able, even at this eleventh hour, to participate in a small degree—small only by reason of time—in an excursion which I know has been exceedingly pleasant, and which I would gladly have enjoyed from the beginning had I been able. Our friend across the table thought he was in a strange land. I think if I could suppose myself in a community of Hottentots, but surrounded for a moment by the members of the Institute of Mining Engineers, I should not have imagined myself in a strange land. It has been my good fortune on many occasions to meet the members of the mining societies, both provincial and federal, and share with them—

“That communion of heart and that parley of soul.

Which have lengthened our night and illumined our bowl.”

In Halifax, in Sydney and in Montreal many things happened which our friends do not always tell you of. I can recall occasions in the Mining Society of Nova Scotia and the Federated Canadian Mining Institute when I had the opportunity of meeting some of the friends. On the important occasion when the American Mining Institute paid a visit to Canada, I remember the night that we climbed Montreal mountain with an escort of snowshoers, and that when we got to the top of the mountain the President of the Association and myself found that there were higher latitudes, which we occupied for a very few moments (laughter). I do not mind confessing that it was with regret that I saw you go away from Quebec, but I had just returned from Europe, and a stern sense of duty prevented me from joining you just as you turned down to the land of the Blue Nose. A friend of mine once told me never to neglect any fun for the sake of business, and I had that feeling at the time I saw you go away. However, I went up to Ottawa to attend to a little business, and yesterday I caught up with you. You have, I am sure, been welcomed by my friend, the Premier of Nova Scotia, who has spoken on behalf of his Government; if you had arrived at Quebec a little earlier I would have been glad to welcome you on behalf of the Government of the Dominion. I suppose it is a little gratification to know that you have as your president a Canadian. We are a little proud of that. In this connection I am reminded of Pinafore—

“For he might have been a Russian,  
A Frenchman, Turk or Prussian,  
Or perhaps an A-mer-i-can;  
But in spite of all temptation  
To belong to another nation,  
He remains Can-a-di-an.”

(Applause.) It is greatly to his credit, but there is something that is a great deal more to your credit. You have by your President proved that you have no nationality in science, because that science is world-wide, and that you are prepared to recognise merit wherever you find it. We are glad to have you come into Canada. You came to Quebec, so full of beauty for the artist and so full of interest to the student of history, and you came down the St. Lawrence into Nova Scotia and Cape Breton. You have seen some of the natural beauty of our country, and I hope you have been most hospitably entertained wherever you went; but if you will not tell anyone I will let you into a little secret, and that is, that we have an eye to business all the same. Was it not your own Mark Twain who said that when his uncle got a big pork contract from his Government he was glad to know that while he served his suffering country he made a nice thing out of it. (Laughter.) So we hope that some of you, after you investigate the resources of the country, will come back again and leave some of your money behind you. Some of you have already found permanent investments for your money in the Dominion. We are glad to be able to say that the mineral development of Canada, principally of Nova Scotia, has been largely carried on by our enterprising friends from the United States, and the great industrial enterprise which is being built up in Cape Breton today is, first of all, the handiwork of a great and enterprising American who led the way. We hope and trust that this intermingling of men and women from the two countries will always be productive of good results. Living side by side as neighbors we ought to see more of each other. We ought to be good neighbours, and I can imagine nothing more likely to assist us in being so than such visits as these. I trust that your visit to Canada has been productive of both pleasure and profit, and that the knowledge that you have obtained in regard to the resources of Canada may induce many of you to again visit us whenever the opportunity occurs. (Applause.)

**THE CHAIRMAN.** There is one more toast—and we have toasted everybody from Quebec to Glace Bay and back—and that is “The Ladies,” who have helped to make our stay so pleasant wherever we have been. I ask you to drink most heartily to the dearest creatures on earth, and will ask Dr. Raymond to reply for them. (Applause.)

**DR. RAYMOND.** Mr. Chairman, ladies and gentlemen, I think that I have got at last the speech I have been fishing for ever since we came into this fisherman's country. Mr. Lewis said that I have studied a speech. I present the ripe conclusions of about 40 years' study, to say nothing of the earlier years that I find it convenient to forget, and I feel it quite appropriate, as an official representative of the American Institute of Mining Engineers to reply to the toast to the ladies, because it was the one technical society on this continent or of the world, for all I know, which was the first to give a place in the sessions and excursions to the ladies (applause), the first to strike a mortal blow to that surviving monster of barbarism, the stag party. You remember, some of you, the night of that first banquet when we paralyzed the town of Pittsburg 21 years ago by inviting the ladies, and when we found it pleasant, not to drink too much and get under the table, but to enjoy rather the society of the ladies opposite. And we were well repaid, and there never was any cause of complaint. Every man in the American Institute is either a married man, or means to be, or wishes he were; but, on the other hand, let me warn you a little against some of these alleged bachelors who have left their wives at home. Do not be deceived by these gay Lotharios. Our beloved Alexander Holley stood up that night at Pittsburg and spoke the words that rang in our hearts, and spoke about the queens of whom we were the soldiers; how he described the mining engineer ranging through all the earth, facing the dangers of the wild beasts and hostile tribes, facing the tunnel through the mountain, bridging the stream, delving into the earth, risking all, daring all, achieving all; and now, he said, if you follow up this man you will find that the ambition of his life and the secret of his firmness is that at the end of that silver cord somewhere there is a little woman into whose lap he pours all his wealth, at whose feet he lays all his ambition, in whose eyes he seeks all his love, and