

becomes of use to the miner and mining engineer, whether working among stratified deposits like those of the coal formation, or in metalliferous veins, like those which traverse the older formations.' To my mind there can be no other use for the Geological Survey of Canada, except that practical one of pointing out localities where minerals are found, their extent and mode of occurrence. This was the object in view when the Survey was organized, and it is only when it has so widely departed from its original purpose, and consequently become of the least practical utility to the country, that such attention is called to it as it is now receiving from your Committee, and from the public generally. If the Geological Survey of Canada is not to have the duty of collecting mining statistics and furnishing all necessary information in regard to minerals and their application, it would be difficult for me to understand the necessity of so great an outlay of money as is annually spent in its maintenance.

"It is perhaps chiefly required of me to give such information as I have acquired concerning the Geological Survey, and to point out what I conceive to be its defects. The duty is not wholly an agreeable one, for though I am greatly devoted to the study of geology and think to have attained to some proficiency therein, it is certainly an unpleasant task for a young man to criticise the acts of his seniors, especially where his criticisms are not above the suspicion of being influenced by personal prejudices. But I can assert that so far as it is possible for me to sink the person in the professor, I have done so, and what I have to say is said solely in the public interest and in the interests of true science.

"So far as I could learn during nearly six years' service on the staff of the Geological Survey, there was no recognized system of work, the individuals of the corps being guided largely by their own inclinations, and oftener hindered by the caprice than aided by the advice, skill and judgment of the Director. In the important matter of the selection of the field of work, no attention was paid by the Director to the practical question of the probable economic results to be derived from the examination of any particular locality; and frequently if work had been carried out in strict accordance with the instructions of the Director no practical results could possibly have been attained. And it was a matter of general observation that many admirable and highly important surveys had been only partially carried out, while many others of very little or no importance had been completed, with little to show for, frequently, a very large expenditure of money except, perhaps, a highly colored and inaccurate map or a wordy and unpractical report. And I wish to say here that, though I do not desire to make a scape-goat of Dr. Selwyn for all the short-comings of the Department under his direction, I do believe and think I am able to show, that had the Director been at all competent, or, even being incompetent, had he possessed the slightest tact in the selection and management of men, the Survey would never have become so thoroughly disorganized; and that it is disorganized must be evident to all. I believe Dr. Selwyn to have no measure of fitness for the position he now holds. I know that he is deficient in the proper knowledge of stratigraphical geology, and so far as I am competent to judge, I believe he has but little information in regard to chemistry, mineralogy, and palæontology. As to his executive abilities, I have no high opinion; and in his treatment of his subordinates he was notoriously partial. Perhaps it will not be necessary for me to enlarge upon this subject, though if your Committee desire I can quote much to substantiate my statements. I will repeat, however, that the great defect in the present system of the Survey management is the want of a proper *head*.

"It has been said in evidence before you that there was too much topography being done by the Survey; but with a somewhat more intimate knowledge of this matter, as it relates to the present management of the Survey, than possessed by the witness referred to, I would submit that it is impossible to obtain too much accurate topography. Accurate topographical maps are the basis and absolutely necessary preliminary of accurate stratigraphical geology. But what the learned gentleman mistook for 'too much topography' is really nothing more than too much multiplication of useless and inaccurate maps. It is true, however, that too