

visited for the purposes of geological investigation. Dr. Daly remarks:—

"This season is the first in which I have been supplied with topographic maps on a satisfactory scale and of sufficient accuracy for thorough geological mapping. The experience of the four years engaged in this boundary work emphasizes the futility of attempting to combine, in one field season, the topographic and geologic surveys of a mountainous region. The topographic map resulting from such a combination of forces may, indeed, be a permanent asset to the government and the people, but it is safe to say that on account of complexity of the average mountain range, the geologic map constructed along with its topographic base, is, from a structural point of view, necessarily very imperfect, if, indeed, it be not quite worthless. Such a geologic map cannot be considered a permanent asset. The same area must inevitably be studied again before its map can be placed among the standard geologic maps of a government survey. This conclusion does not apply to reconnaissance surveys which can never be used in the determination of detailed rock structures except in an incidental way. On the other hand, the structure and origin of the rock formations in any area form the very kernel of the truth which should be expressed in a standard geologic map issued by a government for the benefit of the people. My own experience in this agrees with that of every other Dominion geologist working in the mountains as well as with that of the many workers in the mountains of Europe, India and the United States. True economy teaches that topographic parties should precede the geologists in such regions. The geologist must have his topographic map in his hand if he is to attack with confidence the problems of rock structure, rock origin and ore genesis. A special economy of time and money resulted this season from the fact that I possessed the topographic map of the boundary belt. Through August and September smoke so obscured the country that a topographic corps must have remained idle. Triangulation was quite impossible; other branches of the work must have been almost as completely restricted in a rugged region where one could see but a few hundred yards in any direction. Nevertheless, with the Commission topographic map at my disposal I was able to map geologically in detail three hundred square miles of the belt. Without the aid of that map, half of the field season would have been lost, though the expense of the pack train and assistance were as great as during the times of active field operations."

Dr. Daly's view is also shared by Prof. Brock, who, referring to the work of the Survey in the Lardeau district of British Columbia, points out that serious delays resulted last year from the fact that the topographical and geological surveys were carried on concurrently.

THE ZINC INVESTIGATION IN BRITISH COLUMBIA.

The mining fraternity throughout Canada will, we think, join with us in protesting strongly at the treatment accorded Mr. A. C. Garde, a Canadian engineer of recognized standing, at the hands of a certain political clique, in the lead mining districts of Kootenay. Mr. Garde was appointed by Dr. Eugene Haanel to act as a member—in the capacity of assistant to Messrs. Ingalls and Argall—of the Zinc Commission in British Columbia. No sooner was this known than certain individuals with whom Mr. Garde was for reasons (not at all to his discredit) *non persona grata*, commenced an attack against him and political influences were brought to bear for his removal from the Board. This succeeded in so far that Dr. Haanel fearing, doubtless, that the usefulness of the Commission's work was in jeopardy, appointed Mr. J. L. Retallack in Mr. Garde's stead. Mr. Retallack, however, although we understand bitterly opposed to the appointment of Mr. Garde, was obliged to refuse the appointment realizing that he had not the necessary technical qualifications, and Mr. Garde was reinstated. Under these circumstances the matter would not have required notice in the REVIEW, but for the fact that the *Nelson Daily News*, probably the most influential newspaper published in the Kootenays, continues to be-cudgel Dr. Haanel for his appointment of Mr. Garde, on the ground that he has disregarded the advice and wishes of local mine-owners, "who had at the outset urged on him" the desirability of entrusting the expert work in connection with the investigation to "disinterested specialists, men of recognized ability and standing in the mining world," the inference of course being that Mr. Garde is incompetent and prejudiced. We submit that our contemporary, which is, when uninfluenced by political consideration, generally fair-minded and impartial, has no right to infer anything of the sort of an engineer of Mr. Garde's reputation and standing. To Mr. Garde the Slocan mine-operators owe a great deal;—at any rate they thought well enough of him when he was resident in the district to elect him president of their association,—for he was the first man among them all to address himself to the practical solution of the zinc problem in British Columbia, to call attention to the economical importance of the occurrences, and, if we recollect rightly, to suggest an investigation of these resources under Government direction. But in view of local jealousies, these things are now forgotten. To the unprejudiced man the appointment of Mr. Garde, who is no longer practicing professionally in British Columbia, and has no financial interest in the findings of the Commission, will appear to be an eminently suitable one, and not less so for the very reason urged against him, that he has gained by residence a special knowledge of the district in which the investigations are to be conducted, a qualification which should be of considerable service to his colleagues. If, therefore, what the *News* affirms is true that "the probable outcome of the business will