Smelting Co., this statement would not be granted to the press. Committee.

The twenty-fifth general meeting of the Western Branch of the Canadian Mining Institute was held on Nov. 7th to 10th, at Merritt and at Princeton. Mr. William Brewer of Nanaimo, chairman of the branch presided, and Mr. E. Jacobs, secretary, was in charge of the arrangements. For the account of the meeting at Princeton, we are indebted to the secretary, Mr. Jacobs.

After an address of welcome made by Mr. Waterman on behalf of Princeton and surrounding district, and suitably acknowledged by the chairman, Mr. Chas. Camsell, in response to the call of the chairman, said:

"I am pleased to be present at this meeting of the Western branch of the Canadian Mining Institute, as it gives me a good opportunity to get into touch with mining men who are operating in various parts of the Province.

"The chief function of the Geological Survey of Canada is to assist as much as possible in the development of the mineral resources of the country, and since it is impossible for Survey officials to determine what is required in the way of survey work, meetings such as this one, afford excellent opportunities for acquiring that knowledge, so that we can best adjust and co-ordinate the work of the Survey to meet the needs of the mining industry."

After outlining the work of the Geological Society and the large problems it had to solve, and the onerous responsibilities it had to discharge to the mining industry, with the heavy handicap of lack of personnel, Mr. Camsell spoke of his own work in the Coast range, along the line of the Pacific Great Eastern Railway. That region had been assumed to be composed entirely of granite, but investigation had shown that on the Pacific Great Eastern section there are several belts of sedimentary rocks running parallel to the range and intruded by granite. The contacts of these belts with the granite are all more or less mineralized, chiefly by copper, and some of them give promise of being found to contain ore deposits of commercial value. The significant feature of the results obtained along the Pacific Great Eastern Railway is that what had been assumed to be a large area of granite nearly one hundred miles wide and several hundred miles long without any mineral deposits of commercial importance may be proved to contain several important belts of sedimentary rocks throughout the length of the range, in which the conditions necessary for the presence of deposits of gold, copper, silver, lead, zinc, etc., are favorable.

He next drew attention to the great length of coast line bordering the Coast range, and which for purposes of transportation is as good as a railway line, and he strongly recommended prospecting along the coast. He also mentioned the necessity for more intensive prospecting along the lines of railway where, by reason of favorable location, comparatively lowgrade deposits of mineral could be turned to profitable account. In remote regions, or those difficult of access, only very rich deposits of the precious metals could be worked.

Another suggestion he made to prospectors was that they should search, not only for deposits of metallic minerals, but as well for non-metallic minerals. The latter are too generally overlooked by both prospectors and engineers, but they form a large proportion of the mineral wealth of the country. Such deposits mica, feldspar, silica, potash, bauxite, magnesite, brick clays, phosphate rock, abrasives, cement materials, and various others are all well worth be-



ing on the look-out for.

In closing, he expressed his gratification at the progress being made in the development of the Copper Mountain copper deposits, a progress made in spite of enormous difficulties, and due entirely to the faith and persistence of the men in charge of the development work. The successful future of the Copper Mountain mines now seems assured. Finally, he expressed his heartfelt thanks to the people of Princeton and surrounding district, for their kindly welcome on his return to what had been his field of work for several years.

Dr. W. F. Ferrier also emphasized the advisability of prospecting for non-metallic minerals, many of which are now in demand for war purposes. He drew particular attention to the possibility of the occurrence of bauxite, a hydrous oxide of alumina, in British Columbia, especially in the interior Plateau region, where the basaltic rocks, similar to those from the alteration of which the bauxites of some foreign localities have been derived, are widely distributed.

The different forms of this mineral, their composition, modes of occurrence, and uses were described, and some specimens of bauxite were exhibited. Some of the theories advanced regarding its derivation from various types of rocks were briefly outlined.

Attention was also called to the fact that bauxite is used not only as an ore of aluminium, and in the production of many chemicals, but also is in demand for the manufacture of artificial abrasives employed in the finishing of guns, cartridge cases, motors, and other war material.

Mr. Oscar Lachmund, when called upon by the chairman for some remarks, briefly reviewed the progress of the extensive development work on Copper Mountain, begun by the British Columbia Copper Company and continued by the Canada Copper Corporation, which had absorbed the smaller company. He mentioned that while at first there seemed room for doubt as to the correctness of the conclusions of the geologists who had given their attention to that part of the district, eventually developments had proved that they had been right. The companies he represented had expended approximately \$1,250,000 before they had succeeded in satisfying the engineers sent out from the East that the capitalists these experts represented would be justified in providing the large sum of money required for the much larger operations and equipment that had finally been authorized and are now in progress.

Mr. R. M. Draper next gave an outline of the results of experiments he had recently successfully made in nodulizing flotation concentrate from the mill in Copper Mountain camp, using coal dust instead of coil oil as fuel. This information he supplemented with particulars of work done by the United States Metal Refining Co., at Chrome, N. J., in nodulizing similar concentrate, smelter flue dust, and zinc residues, with oil as fuel.

Mr. P. B. Freeland supplied an interesting summary of his work as Resident Engineer in the Southern Mineral Survey District, and he was followed by Mr. R. R. Hedley and Mr. M. E. Purcell.

Mr. F. S. Norcross spoke of the work done by the B. C. Copper Co. and its successor the Canada Copper Corporation on Copper Mountain properties, his remarks including a statement of figures as follows: Diamond drilling done, 118,000 feet; tunnelling, 90 per cent. of which is 9x10 tunnels. 12,800 feet; raising, 3,000 feet; sinking, 936 feet; surface trenching, 32,000 feet.

