

few of the old miners and prospectors from Cariboo, California, Colorado and other well-known mining regions wandered into Kootenay in search of gold. But the formation was new to them. Some of the more practical of the little band flung aside precedent and boldly proclaimed the mineral wealth of the new territory. Experts, whose heads were filled with California precedents, were called in and averred that the ore was too base and low grade to pay for treatment, and that the formation was so broken that it would be impossible to follow any ore body from the croppings to any considerable depth. How mistaken these gentlemen were has since been fully demonstrated. It has been proven over and over again that the ore bodies increase as depth is attained, and that values improve. However, it took some time and capital to make the pleasing discovery. The first flock of investors was doomed to disappointment, and they had but themselves to blame. They were without experience in mining—farmers, merchants, manufacturers and professional men from the eastern provinces and the Old Country. This was no mining population, and those who composed it had to pay for their experience. Besides, there were "sharpers" in those days who missed no opportunity to take the tenderfoot in and relieve him of his superfluous cash. By degrees, however, prejudices were removed and experience was gained, till to-day Kootenay can boast of the most practical miners in the country and the richest mines.

As already stated, the peculiar formations met with in this district were a puzzle to the experts who undertook to report on the rich discoveries. Minerals are found in almost every combination, the most common, perhaps, being iron and copper pyrites, arseno-pyrite, chalcopyrite, pyrrhotite, tetrahedrite or gray copper, galena or zinc blende. The pyritic ores carry gold in some proportion almost invariably, with a little silver, and often carry so much

copper as to make that metal the principal element of value. The galena is usually rich in silver where the ledges are small, the silver value decreasing in inverse ratio to the increased size of the ledge. Lead values range as high as 75 per cent. with a few dollars per ton in gold. Gray copper proves a high grade silver ore, and when associated with iron carries a gold value. Silver also occurs in association with copper in some districts, and in the form of chlorides, bromides and carbonates. Free gold is frequently found on the surface, where the ore has been subject to the decomposing influence of the air, but it continues in decreasing ratio as the ore bodies are followed down. With increasing depth the gold is found more and more in iron and copper sulphides. In many sections the ledges have a gangue of quartz, porphyry, porphyritic quartz, hornblende or modifications of these several rocks, and are exposed to such a width as to excite wonder.

With renewed confidence in the mines of the Kootenays, a large amount of capital has come in and development work is being actively pursued. Unfortunately, the recent eight-hour law has been productive of some trouble, but it will only be of temporary duration. There is a general feeling that the change should have been agitated rather than legislated. To spring such legislation upon a mining community shows undue impetuosity, to say the least. However, the mining laws of British Columbia will bear favorable comparison with those of any other country, while our mines are second to none in the world for richness and extent. Here as no place else, is person and property safe. The laws are enforced: evil-doers know this, and give the Kootenays a wide berth.

As an example of the rapid growth of the mining industry in the Kootenays, it may be mentioned that while in 1896 this territory turned out ore to the value of \$4,157,162, last year the figures were \$6,177,343,

and this in the face of a big falling off in the silver product of Slocan. To the total Alinsworth division contributed \$159,801, Nelson \$694,880, Slocan \$2,619,852, and Trail Creek \$2,470,811. It is, perhaps, in the Trail Creek division that the greater activity is apparent. The vast amount of development work being done in this section promises to yield substantial returns to the fortunate investors. Already there are many dividend-paying properties in Trail Creek, and others are being added to the list. Some idea of the amount of work being done may be formed from the machinery installed at the various mines throughout Kootenay—a list of which machinery is given in another page.

A wholesome sign of the times is the anxiety being displayed by railway companies to get into newly opened districts. The big corporations realize the immense trade to be captured, and seem determined to get as big a slice of it as possible. The Crow's Nest Pass line has opened up an immense country, not the least important feature of which is the immense coal deposits—said to be among the most extensive on the continent. Then, the rich Boundary Creek district, lying at our very doors, will contribute its full quota to Kootenay's wealth as soon as railway construction is completed there, while the Lardeau-Duncan miners will shortly have the iron horse snorting past their doors at the head of richly freighted cars. Throughout the Kootenays railway building is going on apace, so that ample provision is being made for very complete transport facilities.

Heretofore the treatment of the ores was a difficult problem, but this has been overcome to a great extent. With a greatly improved railway service, better roads and trails, modern machinery, and reduced smelter charges the output of the mines can now be economically and profitably treated, and it is only a matter of time till some still cheaper mode of treatment is devised.