contains miscellaneous mineral specimens as a reference for prospectors who may find and wish to classify ores not at present known in the district, but which they may be able to recognize by comparison with similar ores from other points. The collection will thus be made of practical value to the prospector, as well as being a comprehensive exhibit of the mineral resources of North-East Kootenay.

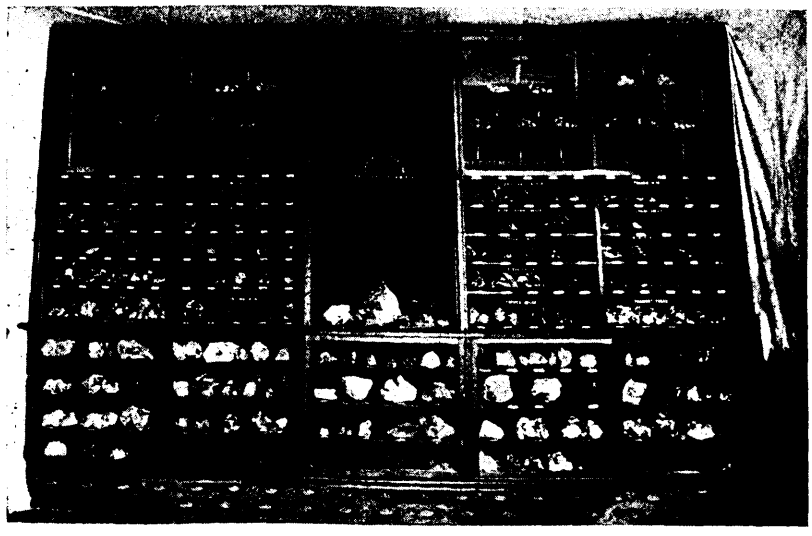
The trouble to which Mr. Lang has gone in this matter is most creditable to the interest which he takes in his duties as recorder. The specimens are at present confined to representative ores of the Golden and Winderemere mining divisions, with the addition of some outside free milling gold ore and specimens from the Hall Mines smelter of ore in various stages of smelting.

SOUTHERN BRITISH COLUMBIA.

By J. D. Kendall.

(Continued from last month).

NO matter whether we take up a geological map of British Columbia, of California, or of Great Britain it is found to be little more, from the miner's standpoint, than a sheet of rock areas, or of areas containing rocks of the same geological age. Such maps can never be of any value to either the miner or prospector. As now prepared geological maps are, for the purposes of the miner or prospector somewhat like the so-called prospectors' hand-books, containing little that is needed and much that is useless. And yet it would be a simple matter to make them almost indispensible. To give only one for example: if it could be shown in any country that the deposition of vein-gold took place in late Jurassic times it is quite clear that it would be useless to search in that country for gold (except as placers, or in other redeposited forms) in Cretaceous or Tertiary rocks. Similar remarks might be made about the other metals. If therefore, geological surveys would—inter alia—fix by observation, or otherwise, the time or times at which the different metallic minerals were deposited in the rocks, a series of maps might be produced which would be of the greatest practical value to the prospector. A similar service might be rendered to the miner by more detailed stratigraphical work, of a particular kind, but to-day in British Columbia, as elsewhere, the miner, i.e., the mining engineer, must be his own stratigraphist, or lose the invaluable aid a knowledge of that branch of geology affords him in the important operations of exploration and development.



DISPLAY OF ORE SPECIMENS AT GOLDEN.

So far as ascertained the relative ages of the principal rocks, constituting what is called the solid geology, in British Columbia, are as shewn in the following table:*

Tertiary	Miocene	Lignite and Baslatic series	Volcanic Rocks mainly
		Unconformity.	
Mesozoic	Cretaceous	Fraser River and Ashcroft beds.	Sandstones, Conglomerate and Argellites
		Unconformity.	
	Trias	Nicola formation.	Volcanic Rocks and Limestones
		Unconformity.	
Palæozoic	Carboniferous (Chiefly)	Cache Creek formation.	Limestones, Quartzites, Argellites, Serpentines and Volcanic Rocks
		Unconformity.	
	Cambrian (Chiefly)	Adams Lake series	Volcanic Rocks, Quartzites and Argellites
		Nisconlith series.	Argellites and Limestones
Archa'en		Shuswap series	Mica Schists, Gneisses and Marbles

In addition to the contemporaneous volcanic rocks referred to in this table, there are numerous and extensive intrusions or igneous rocks, consisting largely of granites, syenites and diorites, etc. Many of the so-called granites are, however, found on microscopic examination to be quartz-diorites. The age of many of these instrusive igenous rocks is probably late Jurassic. A few others are of post-cretaceous age.

It is impossible to give an approximate idea of the distribution of the above named rocks, except in a few small areas, as a large part of the country, even in the fraction of British Columbia now under consideration, has never been examined. It may be said, however, that the Tertiary basalts occur on the Interior Plateau, where they occupy a very large area, more or less interrupted by older rocks. The old palaeozoic rocks have been found chiefly in the Gold range and Rockies; they may, however, exist in the Coast Range, as but very little is known about that area at present. The younger Palaeozoic rocks, and those of Mesozic age, are known to have a wide distribution, occurring in areas more or less extensive from the Rockies to the Pacific.

It may be interesting here to note the corresponding particulars of the rocks that are found, in the solid, along the gold belt of California:†

Eocene	Tejon	Sandstones and Conglomerates
Cretaceous	Chico formation.	Sandstones and Conglomerates
	Unconformity.	
	Mariposa Slates.	Clay Slate with Interbedded Greenstones and some Conglomerates
	Unconformity.	
Carboniferous.	Calaveras formation.	Argellites, Limestone, Quartzites, Mica Schist and Interbedded Greenstone

*Reports of Progress.
†Geological Atlas U.S.A.