had an important bearing in the question of mining, as the rocks were much more compact than those of modern date would be. However, for some years mining operations were carried on to a small extent, and a fair knowledge of the district, and of the auriferous strata acquired. The following section taken at the mine will serve to show the composition ot the strata at the line of junction:—

Loam and clay	Variable thickness
Layer of hardened and dark sand	0 to 1 inch
Coarse sandstone	2 to 30 feet
Conglomerate	10 to 20 feet
Black sand and small pebbles	2 to 6 inches
Auriferous pre-carboniferous slates.	

This section is exposed by a brook which has worn its way along the line of junction, and exposed the Carboniferous in a low cliff. They lie at an easy angle, dipping away from the older rocks, and rest directly on the auriferous slates which are nearly vertical, having an east and west course, and a southerly dip. The gold occurs in the sand and in the lower part of the conglomerate, in flakes and plates, and minute grains, usually in the gravel filling the spaces between the larger boulders, but sometimes cemented directly on them. The slates have many seams a few inches in depth filled with sand and clay, and these crevices frequently carry gold. The top of the slate to a depth of a few inches, appeared at several points, to be filled with fine gold, which had so to speak, soaked into it. In mining, the greater part of the conglomerate, all the sand, and some of the slate was extracted and passed through a stamp mill. It was found necessary, however, to reject many of the boulders as they were too hard to be readily crushed by the stamp mill, which was small and provided only with light stamps. These boulders were examined, freed from any of the adhering cemented gravel, and thrown to one side.

The official returns show an average yield to the ton of material crushed, of from 3 to 4 dwts., which was found but slightly remunerative on the scale of mining operations adopted. The rejected boulders amounted, as I am informed by those engaged in mining here, to about 20 per cent of the total volume of rock extracted. Among these boulders are recognisable many undistinguishable from those now forming part of the foreign ingredients of the modern drift. There are to be seen diorite, porphyry, gneiss, calcareous sandstone, syenite, porphyrites, and granite, etc., apparently with as good a title to descent from the Cobequid Mountains as their more modern congeners. The rest of the conglomerate is made up of boulders from the underlying slates and quartzites, grits and sandstones, apparently from the measures forming the headwaters of the Salmon River of Truro, and which may exist much nearer to Brookfield. The conglomerate lying north of the exposure at Gay's River is traversed by brooks which have at places cut down into its lower portion, and in rearranging the detritus have brought small shows of gold within the reach of the prospector. These conglomerates resemble those of Gay's River and are composed principally of boulders of the slates, etc., upon which they rest. Search, however, shows in them a considerable percentage of the older erratics corresponding to those referred to in speaking of the Gay's River conglomerate.

The next step is the consideration of the conglomerates of the south side of the Cobe-