fine-grained iron-pyrites and specks of yellow sulphuret, in a yellowish quartzose gangue. Here the iron-pyrites constitutes as much as fifteen or twenty per cent. of the rock, while along the whole of the distance above described, about one and a-quarter miles, it is never absent, though occurring in small quantities. At the last mentioned place is the depression before described. As before stated, it is filled with drift, and no rock is seen in it; but from the quantities of iron and copper-pyrites met with in the rock on both sides of it, it is quite possible that under the drift a valuable deposit of copper ore may exist.

"*Iron.*—About half-a-mile south-west of the first mentioned copper ore, and near the lake shore, there is a deposit of magnetic iron ore in chlorite slate; its breadth is fifty feet, and it is seen on its strike, which is S. 65° W., and N. 65° E., about 200 paces. The ore occurs in crystalline lumps and grains throughout the rock. The whole fifty feet would probably yield an average of from fifteen to twenty per cent. of iron. Iron.

"*Ochre.*—The only place this was observed was in the north-east part of Paint Mountain, where a small deposit was met with about half way up the mountain, which probably derives its name from the presence of this ochre or paint." Ochre.

Cambrian.

The limestones found on Lakes Mistassini and Mistassinis, owing to the absence of any fossil remains, have been referred to this horizon on account of their lithological resemblance to Cambrian rocks of the east side of James Bay.

These rocks form the basin of the two lakes, and extend but little beyond their shore line. The south-west boundary is at the end of Abatigoush Bay, where they succeed the Huronian rocks seen on Lake Wakiniche, the contact of the formations being concealed by drift. Area.

Following the western limit, we next find the limestones in contact with, and lying unconformably on, the Laurentian gneiss, on Ponichuan Bay, at the place where the bay narrows. The boundary then follows along the north-west shore of the lake to the north-east end, and I think continues in the same course to a low range of hills, which lies about ten miles beyond the end of the lake.

Sweeping eastward along the base of these hills, the rocks extend beyond the south-west side of Lake Mistassinis, and are seen to occupy the whole of that shore.

Mr. Bignell describes the limestones as occurring several miles on the Temiscamie River, from its inlet to Lake Mistassinis.