

where the stream again turns to the east, and about half a mile below the mouth of a small brook coming in upon the northern side, are bluffs of grey calcareous slate, interstratified with thin layers of grey sandstone, and holding also thin layers of dark-blue compact limestone. They all lie at a low angle, and from this point, for a mile or more, exhibit along the shores a series of undulations, in which the folds are, for the most part, very broad and open, with very moderate dips (4° or 5°), but which also include some more abrupt corrugations, with dips as high as 80° . The slates have a strong cleavage, with an underlay N. 50 W. $> 80^{\circ}$, and have also a pale-greenish tinge, which, by weathering, sometimes becomes quite pronounced. The limestone layers are from three-fourths to one and a quarter inches in thickness, being separated from each other by about six inches of slate, and where first seen form continuous sheets, but somewhat further down they exhibit the remarkable peculiarity of being transversely and abruptly broken into separate pieces, from one or two inches to a foot in length, as though the whole rock had been shattered by the passage of violent vibrations—a feature which is exactly repeated in similar beds, having similar associations, on Siegas River, in Victoria County, New Brunswick. Much of what has been called limestone upon this river is really only a highly calcareous slate, which weathers somewhat like the first-named rock, but there are also, in places, numerous thin bands alternating with the slates, of nearly pure, dark-blue limestone, seamed with spar. The last beds visible upon the stream are to be seen about three quarters of a mile above the mouth of Salmon Brook, in Washburne, below which the river is bordered by low banks and intervals. It is near this point that, in the fields above the river, occurs the bed of iron-ore referred to by Prof. Packard, in Hitchcock's Report. This, not outcropping upon the stream, was not seen by the writer, but its position would, apparently, correspond to that of the red and green slates, which are elsewhere, both in Maine and New Brunswick, so generally associated with such ores.

If now the above section upon the Aroostook be compared with that given in my paper of last year, as seen on the East Branch of Fish River, it will be found that, if the conclusions above stated are correct, there is between the two a very close correspondence. Thus, in the Fish River section, we have—

- Grey, reddish and brown sandstones and shales, associated with beds and enclosing masses of fossiliferous limestone.
- Grey calcareous conglomerate, with pebbles of dark flinty slate, jasper, etc.
- Grey calcareous and buff-weathering sandstones, with crinoids and shells.
- Grey and dark-grey slates, with remains of plants.
- Grey, bluish-weathering calcareous slates.

and upon the Aroostook—

- Grey, reddish and brown sandstones, containing fossiliferous calcareous layers, and associated with beds of highly fossiliferous limestone.
- Green and red slates, with thin beds of calcareous conglomerate.
- Heavy beds of coarse conglomerate, with pebbles of black siliceous slate, green and red jasper, etc.
- Grey sandstones, often buff-weathering, with numerous remains of shells and corals, mingled with fragments of plants, small pieces of black slate, and occasionally of serpentine.
- Grey, dark-grey and greenish, calcareous slates, with thin bands of limestone, and beds of hematitic iron.
- Grey, bluish-weathering calcareous slates.