

part or another of Newfoundland. The following column is the descending order of the different series that have been recognized:—

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| 1. Carboniferous. | 5. Primordial Silurian. |
| 2. Devonian. | 6. Huronian or Cambrian. |
| 3. Upper Silurian. | 7. Upper Laurentian? |
| 4. Lower Silurian. | 8. Lower Laurentian. |

The lowest of these systems appears to constitute the principal mountain ranges of the island, coming to the surface through the more recent deposits, on the axes of anticlinal lines, or brought up by great dislocations, most of which trend nearly parallel with each other, in a general bearing of about N.N.E. and S.S.W. The Laurentian gneiss of the Long Range, on the western side of the island, extends in a nearly straight course from Cape Ray to the head waters of the Castor on the great northern peninsula. At the south-west extreme of the island these rocks occupy the coast from Cape Ray to La Poile. They are largely exhibited on the Grand Pond, running as a spur from the Long Range between it and the Red Indian Pond, and bearing for the south-eastern shores of Hall's Bay. Similar gneissoid rocks are known on the south coast about Burgeo, and again between Cape La Hune and Connaigre Bay; and the latter range appears to run to the westward of the lakes of the Bay East Brook, Bay Despair, but as that central part is still unexplored, it would be premature to advance further particulars; nor can it be stated with certainty that that gneiss is of Laurentian age. Another great granitic and gneissoid belt was observed at the head of Placentia Bay, with a breadth of about seven miles, between the Black River and the Piper's Hole River, which forming a lofty range of hills, bears towards Cloch Sound in Bonavista Bay, and was crossed on the Terra Nova Lake and river, which falls into Bloody Bay of the same. The continuation of the latter range is again recognized at the mouth of the Gambo in Freshwater Bay, and thence holds the northern coast of Bonavista Bay to Cape Freels. The same description of gneiss is largely developed in the Island of Fogo, where it probably forms a spur from the last mentioned belt; but the relation it bears there to the newer formations has not yet been at all clearly established. Still another such range comes up in the District of Ferryland, forming a nucleus to that part of the peninsula of Avalon, and showing itself occasionally on the coast between Holyrood and Manuel's Brook, in Conception Bay.

On the upper parts of the great Codroy River, on the Western flank of the Long Range, large fragments of white crystalline limestone with graphite were met with, evidently not far removed from the parent bed, which seem to indicate the presence of the upper portions of the lower system in that region; and further N. E. on the same range, the occurrence of Labradorite and other crystalline rocks, with masses of magnetic iron, is suggestive of the probability that Upper Laurentian strata are partially exhibited there also.

In the peninsula of Avalon, the crystalline rocks of the Laurentian period are succeeded by a set of slates with conglomerate bands,