

equal, consisting of lakes, swamps, and banks of drift, with large quartzite-boulders. At about 12 miles from the junction, we pass through cuttings in quartzite, with little interruption, until we reach Mount Uniacke, 13½ miles (railway measurement) from the junction. The bottom of the series is now arrived at. I would here observe that from this station onward I had the valuable assistance of Mr. Marshall, who constructed this part of the road.

Having reached Mount Uniacke, we come to the intruding granite; passing through this for some distance, we come to quartzite; and, with this slight interruption, the granite extends to about 4 miles from the place of its commencement.

Passing onward, we now begin geologically to ascend. We pass through cuttings in quartzite for a distance of about 2½ miles; and then we come to clay-slate, resembling that of Allen's and Laidlaw's gold-fields. The cuttings through this extend about 2½ miles. We then come again to quartzite: there are about 2½ miles of cuttings through this rock, and then we reach the Lower Carboniferous formation; of this we have half a mile of sandstone, unconformable to the quartzite, and then gypsum, &c.

Thus much for the arrangement of the rocks on the Windsor Line. On the Halifax and Truro Railway we may commence our observations at the top of the series, and proceed in descending order:—Near the Elmsdale Station, about 30 miles from Halifax, we have the Lower Carboniferous gypsum; then occurs a space which is obscure, but is probably occupied by Lower Carboniferous sandstone. There is rising ground in the distance on either side, on one of which sides is the Elmsdale gold-field, about 4 miles distant from the Station. Proceeding along the line toward Halifax, we approach the Grand Lake, which is 22½ miles from the Terminus. Before we reach the lake, we come to quartzite; then cuttings in this rock succeed for probably 2 or 3 miles; then comes clay-slate, extending probably about the same distance; the next 3 or 4 miles are obscure, and then, in the vicinity of and at the junction, as was seen in the preceding course of observation, quartzite occurs; and from this onward to the Terminus there are deep cuttings, with masses and boulders of quartzite. At the Terminus, slate again occurs; but this evidently belongs to another series, whose granitic axis occurs in the direction of what is called the North-west Arm.

From the preceding observations I would infer:—that Mount Uniacke and the granitic range of which it forms a part is the geological centre of the series which I have been attempting to illustrate. This and the other granitic bosses occur somewhat irregularly throughout the formation to which the group under consideration belongs, and, as far as I have observed them, are inconsiderable in height.

That when gold occurs on the one side of a granitic mass in this formation, it may reasonably be expected to occur on the other side of the anticlinal axis.

That as the granite-bosses are irregularly distributed throughout the formation in question, a corresponding irregularity may be expected to exist in the distribution of the gold-fields. This irregu-