

correlates the fauna with that of the upper horizon of the Potsdam faunas of Wisconsin and Nevada.

§ 67. At the south end of the Timpahute Range, in Southern Nevada, Mr. G. K. Gilbert collected *Olenellus Gilberti* and *O. Iddingsi* from fillets of limestone in a yellow argillaceous shale occurring above a massive quartzite, the equivalent of 1 of the Highland Range section.

§ 68. In comparing the Highland Range section with the Eureka section, we find that the stratigraphic and faunal succession, up to the base of the Trenton limestone horizon of the Eureka section, is much alike in each. The Highland Range section was not measured in detail above 23 of the section, but, continuing north along the crest of the range and crossing Stampede Gap, the higher strata, above 23, begin to appear dipping to the southeast, the dip increasing towards the north, and higher beds coming in until at the low pass just north of Bristol the white quartzite just below the Trenton horizon appears. An estimate, made while riding along the eastern base of the range, gave 2,500 feet as the thickness above the highest beds of the section and the quartzite. I think this is less than the actual thickness. Adding 2,500 feet to the 4,800 feet of the measured section, we have 7,300 feet of limestone between the Cambrian and Silurian quartzites, or the Prospect Mountain and Eureka quartzites of the Eureka section.

§ 69. At Pioche, on the Ely Mountains, just east of the line of the section, the lower quartzite (1) gives 1,200 feet. Adding 850 feet to division 1 of the Highland section, we have over 5,500 feet for the Cambrian and 2,500 feet for the Silurian. The hiatus between the two is probably considerable, as at White Pine, 100 miles north, the Lower Silurian (Ordovician) limestone, below the quartzite, is over 5,000 feet thick.

§ 70. On the west side of the Highland Range, west of the highest point, the upper (Eureka) quartzite is shown in a hill north of the road leading from Bennet's Springs to Hiko. Fossils are very abundant. No strata overlying the upper quartzite were observed in the Highland Range between Bennet's Springs and two miles north of Bristol; but in the Pahrnagat Range, both Trenton and Silurian (Niagara) fossils occur within 500 feet above the quartzite.

§ 71. West of the Highland Range, at Silver Peak, Nevada (long. 117°, 20' W., lat. 38° N.), Mr. J. E. Clayton collected a few fossils to which Prof. J. D. Whitney called the attention of the California Academy of Sciences, in 1866, referring to them as probably Upper Silurian or Devonian (Proc. Cal. Acad. Sci., vol. iii, p. 270, 1866).

§ 72. Mr. F. B. Meek subsequently studied the fossils, referring to them as Silurian, and describing *Ethmophyllum Whitneyi* and *E. gracile* (Amer. Jour. Sci., 2d ser., vol. xlv, p. 62, 1868) as corals, and then, in the same year, referring (ibid., vol. xlvi, p. 144) them to the genus *Archæocyathus* of Billings. No other species were mentioned by Mr. Meek.

§ 73. The original collection from Silver Peak, or a portion of it, was found in the Smithsonian Institution collections, and proved to be