the unbroken stratigraphic sections of the Eureka District and the Highland Range.

§ 83. The first section, that of Big Cottonwood Cañon in the Wasatch Mountains, is represented as resting on pre-Cambrian rocks, and extending up to the Middle Cambrian horizon. The Lower Silurian (Ordovician) strata rest directly on the top of this section in nature; but we leave the hiatus between the Middle and Upper Cambrian horizons to show the unconformity, by non-deposition, in this section, as compared with the Eureka section, where the hiatus of the Big Cottonwood section is filled in by several thousand feet of limestone strata containing the fauna that, to a great extent, bridges over the break in the fauna between the top of the Big Cottonwood Cambrian and the Silurian strata.

§ 84. The Eureka section (2) is correlated at its base with section (1) by the stratigraphy and contained fauna. A dark massive quartzite, overlaid by shales, occurs in each; and this horizon is traced across the intervening country between the two sections by its occurrence in the Oquirrh, Tintic, and House Ranges, and also south of Eureka in the Highland Range. It is only in the Wasatch section that the great quartzitic series is traced down towards its base, the uplifts of Nevada not having brought it up, except, possibly, at one point—White's Peak, in the Schell Creek Range of Eastern Nevada—where Mr. G. K. Gilbert measured a section 11,580 feet thick, that is very much like that of the Wasatch. Unfortunately no fossils were found (Geog. and Geol. Expl. and Surv., West 100th Merid., vol. iii, pp. 167, 171). The Eureka section extends up from the Olenellus horizon 6,200 feet to where the upper limit of the Cambrian is drawn. In the table it is represented on the same scale in its extension up to the Trenton horizon of the Lower Silurian (Ordovician).

§ 85. The Highland Range section is essentially a reduplication of the Eureka section, and, like it, joins on the Wasatch section in the same manner at the base. It is not represented in the table.

§ 86. The Grand Cañon Cambrian and pre-Cambrian strata (see fig. 5) have been roughly described by the writer (Amer. Jour. Sci., vol. xxvi, p. 438, 1883). At the top it consists of 1,000 feet of strata carrying a strong and characteristic Upper Cambrian or Potsdam fauna. Then a great unconformity occurs by the erosion of an entire cross-section of the 13,000 feet of strata below that rest unconformably on the underlying highly inclined strata, which, where the section terminated, belong to a system of strata between the Grand Cañon Series and the Archean. In the table the period of erosion is represented as having removed all the strata between the Upper Cambrian and the Lower Cambrian horizon, but I now think it would have been better to classify all the pre-Tonto strata as pre-Cambrian.

§ 87. This to a certain extent is hypothetical, but we know from the