

The perlitic structure is so characteristic of this rock that the varieties which specially exhibit it were formerly regarded as a distinct rock-species under the name of *Perlite* or *Pearlstone*. As the name indicates, the structure presents enamel-like or vitreous globules which, occasionally assuming polygonal forms by mutual pressure, sometimes constitute the entire rock, their outer portions shading off into each other, so as to form a compact mass; in other cases, separated by and cemented in a compact glass or enamel. They consist of successive very thin shells, which, in a transverse section, are seen as coiled or spiral rings, usually full of the same kind of hair-like crystallites and crystals as in the more glassy parts of the rhyolite (Fig. 9). As these bodies both singly and in fluxion-streams traverse the globules, the latter may be regarded as a structure developed by contraction in the rock, during its consolidation, analogous to the concentric spheroidal structure seen in weathered basalt (Fig. 94). Among these concentrically laminated globules true spherulites occur, distinguished by their internal radiating fibrous structure (Figs. 7, 17).

Rhyolite is an acid rock of volcanic origin. It forms enormous masses in the heart of extinct volcanic districts in Europe (Hungary, Euganean Hills, Iceland, Lipari), and in North America (Wyoming, Utah, Idaho, Oregon, California).

*Nevadite*—a variety of rhyolite named by Richthofen from its development in Nevada, and characterized by its resemblance to granite, owing to the abundance of its porphyritic crystals, and the relatively small amount of ground-mass in which they are imbedded. The granitoid aspect is external only, as the ground-mass is distinct, and varies from a holocrystalline character to one with abundant glass, and the texture ranges from dense to porous.<sup>173</sup>

*Felsite* (Felstone).—Under this name a large series of rocks has been grouped which appear for the most part to have been originally vitreous lavas like the rhyolites, but which have undergone complete devitrification, though frequently retaining the perlitic, spherulitic, and flow-struc-

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<sup>173</sup> Hague and Iddings, Amer. Journ. Sci. xxvii. (1884), p. 461. These authors distinguish between *Nevadite* and *Liparite*, the latter being characterized by the small number of porphyritic crystals imbedded in a relatively large amount of ground-mass, which, as in *Nevadite*, may be holocrystalline or glassy. They also distinguish *Lithoidal Rhyolite* and *Hyaline Rhyolite* as additional varieties.