

from the reducing action of decaying organic matter, as in the circular green spots so often found among red strata.

Lustre, as an external character of rocks, does not possess the value which it has among minerals. In most rocks, the granular texture prevents the appearance of any distinct lustre. A completely *vitreous* lustre without a granular texture, is characteristic of volcanic glass. A *splendent semi-metallic* lustre may often be observed upon the foliation planes of schistose rocks and upon the laminæ of micaceous sandstones. As this silvery lustre is almost invariably due to the presence of mica, it is commonly called distinctively *micaceous*. A *metallic* lustre is met with sometimes in beds of anthracite; more usually its occurrence among rocks indicates the presence of metallic oxides or sulphides. A *resinous* lustre is characteristic of many pitchstones. *Lustre-mottling* is a term applied to the interrupted sheen on the cleavage faces of minerals which have inclosed much smaller crystals or grains of other minerals. It is well seen on the surfaces of some of the constituents of serpentine rocks.

5. Feel and Smell.—These minor characters are occasionally useful. By the feel of a mineral or rock is meant the sensation experienced when the fingers are passed across its surface. Thus hydrous magnesian silicates have often a marked soapy or greasy feel. Some sericitic mica-schists show the same character. Trachyte received its name from its characteristic rough or harsh feel. Some rocks adhere to the tongue, a quality indicative of their tendency to absorb water.

Smell.—Many rocks, when freshly broken, emit distinctive odors. Those containing volatile hydrocarbons give sometimes an appreciable *bituminous* odor, as is the case with certain eruptive rocks, which in central Scotland have