concentric arrangement of the different rock varieties produced, usually with the most acid rock in the center and the most basic in the peripheral portions of the mass; sometimes however the reverse arrangement occurs, the basic rock being the central one. This of course is in the large way, and insignificant local variations, such as are specially characteristic of gabbros, are not in mind. Now both at Tupper lake and at Diana the gradation into granite appears to be a one-sided one, and with no apparent sign of any tendency to concentric arrangement. At Tupper lake the gabbroic phases of the syenite, so far as they have been noted, are all in the vicinity of the anorthosite, while the gradation into granite is apparently confined to the south side of the mass, and other granites appear in force beyond. This is certainly an unusual arrangement, and the cause, though not now manifest, may perhaps be brought out by more detailed work, specially in the unexplored country to the south.

Morris granite. There is one granite in the region which presents very definite characters, is generally found only in small masses, plainly cuts all the rocks heretofore described and hence is likely the latest granite in the region, and to which for convenience of reference and because of its usual easy recognition it seems worth while to give a name. Hence the term "Morris granite" is suggested for it, because of the considerable exposures which occur cutting the augite syenite on the west slopes of Mt Morris, Franklin county.

The rock is peculiar in that it consists almost wholly of alkali feldspar (mostly microperthite) and quartz. There is a trifling amount of hornblende and magnetite usually present, and occasional minute apatites and zircons, but they seldom form more than 5% of the whole. The feldspar is red in color, usually strongly so. The rock presents both coarse and fine grained phases, and it is the former which so characteristically marks the rock. The quartz is concentrated into long spindles or pencils, or else into long flattened lenses, giving the rock a pronounced linear structure; that is, the structure appears gneissoid on fractures parallel to the spindles and not at all gneissoid on fractures at right angles to them, since here the spindles present their rounded cross sections merely. Since the quartz percentage is high, these large