

the shores of Upper Chateaugay lake may be mentioned as localities where they are exceedingly numerous. Followed to the south and west, they rapidly diminish in number and become rare or wholly absent. Thus Kemp reports many from Essex county, mainly in the north, but very few from Washington and Warren. Franklin county is much larger and with a proportionate much greater area of Precambrian rocks than Clinton, yet only some forty of these dikes have been discovered there, and these mainly in the eastern portion. Though many more doubtless remain undiscovered, the relative abundance can be calculated, and they are six to eight times as abundant in Clinton as in Franklin. In St Lawrence, Hamilton and Herkimer counties they are practically absent, and the few known are toward the northeast. Smyth reports them in comparative abundance in the Thousand islands region on the west border of the district, and a single large dike of diabase is found in the Little Falls outlier on the far south. So far as the present Adirondack region is concerned, the igneous activity of this time centered in Clinton county, dying out toward the south and west. As to the extension northward and eastward, nothing can be stated, since the Precambrian rocks pass under a paleozoic cover in those directions. Diabase dikes are however fairly abundant in Canada in the region beyond this cover.

The centering of the activity in Clinton county becomes the more apparent when the distribution of the two varieties of the dikes is taken into consideration, the red, syenite dikes being practically confined to that county. They are far less numerous and of much more restricted distribution than the diabases. Only 26 dikes of this class have been noted, of which 19 are on Rand hill, where exposures are numerous and detailed work has been done. No doubt there are many others elsewhere, but it seems quite certain that they are practically confined to the county, only one having been noted outside its limits, and that in Franklin not far from the boundary. Even on Rand hill the diabases much outnumber them. The display of dikes there is the most impressive known in the Adirondack region. If any volcanos were built at the time, surely the roots of one gigantic one are here.

As already been stated, these rocks are found at the present