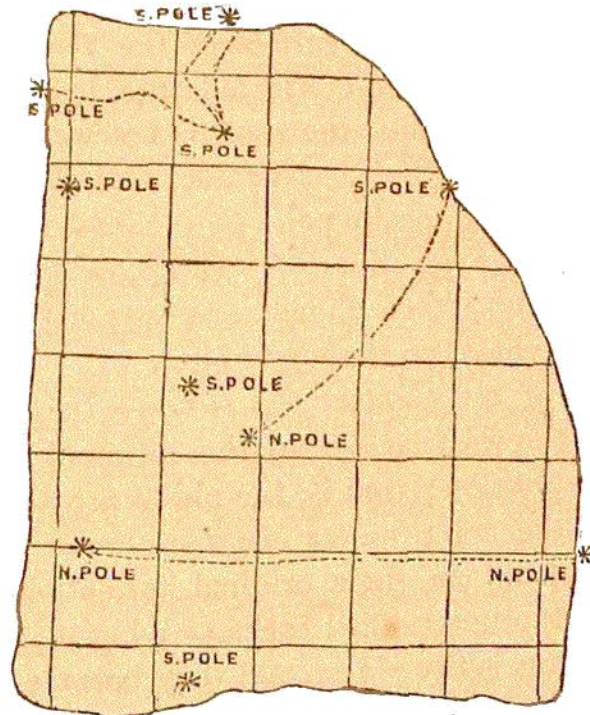


Baron Humboldt first pointed out the magnetism of rocks, in a hill of serpentine, which he supposed to have only two poles, that is, to constitute one magnet. In 1815, Dr. John MacCulloch described a similar character in such rocks as granite, porphyry, syenite, serpentine, several kinds of slates, and especially of trap. He discovered that several magnets existed in the same mass of rocks.

We have found remarkable examples of the same kind, and some others still more complex, upon the trap rocks of New England. Upon examining a continuous surface, at certain localities, of only a few square feet, we frequently find several distinct magnetic poles, either north or south, and sometimes both, within a few feet or inches of each other. This fact is discovered by moving a pocket-compass over the surface. Wherever a pole exists, the opposite pole of the needle will point to it, as the compass is moved about. Fig. 71 represents a surface where these different poles were found. The nature of the pole is indicated by the words N. Pole and S. Pole. The size of the area shown in the figure is six by eight feet, the squares representing feet on Mt. Holyoke.

Fig. 71.



Another remarkable fact is shown upon the figure. Dotted lines are seen connecting some of these poles, along which the needle continues reversed, just as it does at their extremities, or