complications. These are easily illustrated. Glue together thin board-like pieces of pine, cherry, oak, beech, mahogany, apple or other woods, to represent strata. Then cut the pile in various slopes and curves, and notice where the various sorts of wood outcrop. This represents precisely what we observe in the actual arrangements of outcrops. But the Drift covers so much that we often experience difficulties in finding where the rocky outcrops lie.

The complications in the structural arrangements of the rocks are still greater. Anticlinal dips pass off each side into level strata or synclinal arrangements. A synclinal arrangement is often along the highest region, instead of the lowest, as one would expect. On the contrary, an anticlinal arrangement is often along the bottom and sides of a valley, instead of running along the crest of a mountain, as one might expect. These things result from extensive erosions. Again, the dips sometimes become very great—even vertical—and there may be difficulty in deciding which is the upper side of a stratum. Worse than this, we sometimes find a pile of strata tilted so far as to seem to dip in the opposite direction. Then the older and lower strata in fact lie uppermost, and seem to be newer. This inversion of strata sometimes occurs along the Appalachians.

But there are some compensations for all this confusion. The Eozoic, or crystalline rocks are lowest of all in position, and when they are in sight they form a landmark from which we can estimate upward. Remember, however, that the lowest rocks—lowest in geological position—are often highest in topographical position. They are often at the summits of mountains, as in the Alps and the Rocky Mountains. The newer strata then slope down in order along each side of the mountain, and pass under the plain.

In the next place, strata are to some extent, arranged in long folds, which here rise in a ridge, and there disappear under a synclinal. Such long drawn forms are found along the Laurentian hills in Canada, and along the Appalachians. Here we catch sight of a general method in rock arrangements.