

fastenings? And have you ever seen such mound cut through for a highway or other purpose? If you have, you have witnessed a semi-stratified order of deposition somewhat like that in the Drift. Those who have thought on this resemblance have reached the conclusion that the semi-stratified Drift must have been moved and laid down by some kind of *torrential action*.

But however this was, the origin of the bed of Boulder Clay must have been very different. Here is no sort of bedding. The whole is in a state of uniform confusion. Evidently, then, Nature employed two kinds of action successively in transporting and dispersing the Drift. In the semi-stratified Drift, water in tumultuous movement may have been the chief agent. In the Boulder Drift water was *not* the chief agent, since here is none of the assortment and stratification due to water, and here also are rock-masses moved scores or hundreds of miles, and these results are not ascribable to water.

Let us take another glance over the general distribution of the Drift. We have seen the boulders increasing in bulk and abundance northward. We have seen the whole Drift formation terminating southward on about the parallel of Cincinnati. We find incoherent surface deposits in Kentucky and southward; but they contain no boulders; and they have mostly resulted from the disintegration and decay of the bed-rocks in place. The Drift, then, is a *northern* phenomenon.

If we notice more carefully the detailed distribution of boulders, we find that, while they have generally moved southward, there has also been a radial distribution from high mountains. In New Hampshire the boulders move east and west from the White Mountains, as well as south. In Switzerland, the *Pierre à bot* and thousands of other boulders moved north-westward from the Mont Blanc range—though on the opposite sides of Mont Blanc the movement was in the opposite direction. In the Rocky Mountains and the Sierra Nevada, the movement of the boulders was east and west from the mountain axis. So, too, the southward distribution of boulders was greatest along mountain elevations.